RAPID ENVIRONMENTAL ASSESSMENT DEMONSTRATION PROJECT IN RUSSIA

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REPORT

2021
Rapid Environmental Assessment Demonstration Project in Russia

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List of Acronyms

ACAP  Arctic Contaminants Action Program
AMAP  Arctic Monitoring and Assessment Program
GPS   Global Positioning System
ISS   Initial Site Screening
mg / kg milligrams per kilogram (same as ppm)
MAC   Maximum Allowable Concentration
PE    Pure Earth Blacksmith Institute
ppm   parts per million
REA   Rapid Environmental Assessment
TSIP  Toxic Sites Identification Program
INTRODUCTION

by the Chair of ACAP Expert Group on Waste

The Arctic Contaminants Action Plan (ACAP, which later became Arctic Contaminants Action Program in 2006) started working on safe storage of Northern Russian obsolete pesticides in 2001. The project addressed 13 regions of the Russian Federation that either were directly located by the Arctic Ocean or had an indirect route to the Arctic via rivers. By 2013, 7 000 tonnes of obsolete pesticides had been repackaged and, where necessary, removed into safer regional storages by the local experts.

The ACAP project on obsolete pesticides at that stage did not address the potential pollution of the surroundings of thousands of storages. These former storages were of varying type and shape, from barns in former collective farms to simple shacks in the outskirts of human settlements. With improved packaging and removal of pesticides the main hazard was removed, but unknown amounts of pesticides might have contaminated the building materials and leached into soils around storages.

The Rapid Environmental Assessment (REA) is a tool developed by the United Nations Food and Agriculture Organization (FAO) for prioritizing pesticide contaminated sites for further intervention. The ACAP REA project was initiated to demonstrate the use of this methodology / tool, and train experts to use it in three pilot regions: Arkhangelsk Oblast, Komi Republic and Krasnoyarsk Krai. All these regions received support from ACAP for pesticide storage improvements between 2004-2012. The REA project has built capacity to prioritize and identify storage sites where further intervention might be necessary through desk study, sampling and laboratory analysis, in a cost-efficient manner.

ACAP will continue to support the regions in dealing with the remaining problems of obsolete pesticides and seek solutions to environmentally sound final destruction.

Timo Seppälä
Chair of ACAP Expert Group on Waste
EXECUTIVE SUMMARY OF FINDINGS

In September-November 2020 the project teams in the Krasnoyarsk, Arkhangel'sk and Komi regions did 9 rapid environmental assessments of sites potentially contaminated with pesticides. The objective of the project was to introduce United Nations Food and Agriculture Organization developed cost-effective Rapid Environmental Assessment technique to detect the remaining threat to human health or the environment from former obsolete pesticides storages. The obsolete pesticides have been removed from old and unsafe storage facilities in the ACAP project between the years 2004-2012.

MAJOR FINDINGS

• The number of old and unsafe storage facilities are many in the Russian Federation in the Arctic region. The results indicate that the pesticides management activities provided results and that only limited pollution is detected in surroundings.

• The remaining pollution of the 2 analyzed groups of toxic substances (DDT and its transformation products and HCH and its isomers) is mainly below the Russian limit values at these 9 sites.

• The investigators found contamination that exceeded the safety standards established in Russia for DDD, a transformation product of DDT, only at one out of 9 assessed former pesticide storages.

• These results show that REA methods could be used to conduct inventory of sites potentially contaminated with pesticides at reasonable costs. The project demonstrated the use of the tools and trained experts to continue assessments of remaining storages in the regions.

• The pilot project should preferably be followed up at the national level with a specific program to clean-up similar sites by applying these tools.

TOOLS AND METHODS APPLIED

The rapid environmental assessments followed REA and TSIP protocols. The investigators completed physical descriptions for each site, identified the sources of contamination, estimated the migration of the pollutants and exposure pathways, assessed population at risk. The investigators took topsoil samples at each site, recorded sampling coordinates, took photos and prepared maps. According to the protocol, pesticides that are suspected to be present at the site based on the desk study, are analyzed in the laboratory. If the investigators find some labels, particular colorations, smells that indicate particular pesticides left, during the fieldwork, tests are extended to those as well. Based on available information on the selected sites two groups of the most important typical organochlorine pesticides, DDT and HCH were analyzed. There might be other substances left, but the monitoring was limited to these substances. The descriptions of sites and documents were uploaded to the online database.

At the site “Abandoned warehouse, Pezmeg Village, Kortkeros District, Komi Republic (RU-8441)” investigators collected 10 soil samples that were analyzed for DDT, DDE, Lindane (γ-HCH). All samples showed concentrations below Maximum Allowable Concentrations (MAC) adopted in Russia – 0.1 mg/kg for DDT and 0.1 mg/kg for lindane. This indicates that the site that was previously cleaned up from pesticides is considered to not require further intervention based on the hazard assessment.

At the site “Former pesticides warehouse, Mosha village, Nyandomsky District, Arkhangel'sk Oblast (RU-8476)” investigators collected 12 soil samples that were analyzed for DDT, DDE, Lindane (γ-HCH). All samples showed concentrations below MACs. This indicates that the site that was previously cleaned up from pesticides is considered to not require further intervention based on the hazard assessment.

At the site “Former warehouse of toxic chemicals, Syktyvkar town, Komi Republic (RU-8502)” investigators collected 10 soil samples that were analyzed for DDT, DDE, Lindane (γ-HCH). All samples showed concentrations below MACs. This indicates that the site that was previously cleaned up from pesticides is considered to not require further intervention based on the hazard assessment.

At the site “Former pesticide warehouse, Vizinga Village of Sysolsky District, Komi Republic (RU-8513)” investigators collected 10 soil samples that were analyzed for DDT, DDE, Lindane (γ-HCH). All samples showed concentrations below MACs. This indicates that the site that was previously cleaned up from pesticides is considered to not require further intervention based on the hazard assessment.
At the site “Former pesticides warehouse, Prigorodny Village, Kargopol District, Arkhangelsk Oblast (RU-8530)” investigators collected 12 soil samples that were analyzed for DDT, DDE, Lindane (γ-HCH). All samples showed concentrations below MACs. This indicates that the site that was previously cleaned up from pesticides is considered to not require further intervention based on the hazard assessment.

At the site “Former pesticides warehouse, Rovdino Village, Shenkurskiy District, Arkhangelsk Oblast (RU-8531)” investigators collected 12 soil samples that were analyzed for DDT, DDE, Lindane (γ-HCH). All samples showed concentrations below MACs. This indicates that the site that was previously cleaned up from pesticides is considered to not require further intervention based on the hazard assessment.

At the site “Former warehouse of pesticides, Atomanovo Village, Sukhobuzimsky District, Krasnoyarsky kray (RU-8543)” investigators collected 8 soil samples that were analyzed for DDT, DDD, DDE, Hexachlorobenzene (HCB), Lindane (γ-HCH), α-HCH. All samples showed concentrations below MACs. This indicates that the site that was previously cleaned up from pesticides is considered to not require further intervention based on the hazard assessment.

At the site “Pesticide warehouse in Morskushenskyoie Village of Kazachinsky District, Krasnoyarsky kray (RU-8544)” investigators collected 10 soil samples that were analyzed for DDT, DDD, DDE, HCB, Lindane (γ-HCH), α-HCH. 3 samples exceeded MACs for α-HCH, 2 samples exceeded MACs for lindane, 2 samples exceeded MACs for DDD. These results indicate that the site could be a source of health hazard and environmental contamination. A more detailed assessment is recommended in order to assess potential environmental and health risks and plan remediation.

At the site “Former pesticide warehouse, Nakhvalskoe Village of Sukhobuzimsky District, Krasnoyarsky kray (RU-8546)” investigators collected 12 soil samples that were analyzed for DDT, DDD, DDE, HCB, Lindane (γ-HCH), α-HCH. All samples showed concentrations below MACs. This indicates that the site that was previously cleaned up from pesticides is considered to not require further intervention based on the hazard assessment.

More detailed site descriptions and assessment reports are in Appendix 5.

Figure 1. Sites in TSIP database
PROJECT OVERVIEW

The project was successful in demonstration of REA and TSIP protocols and tools. 12 people were trained in REA methods in one training session. 9 REAs were completed, exceeding the objective of conducting 6 site assessments.

PROJECT GOAL

The goal of the project is to demonstrate the methods of Rapid Environmental Assessment for assessing sites contaminated with obsolete pesticides.

SPONSORS AND PARTICIPANTS

The project was initiated and supported by Arctic Contaminants Action Program (ACAP) of the Arctic Council. Arctic Council is the leading intergovernmental forum promoting cooperation, coordination and interaction among the Arctic States, Arctic Indigenous peoples and other Arctic inhabitants on common Arctic issues, in particular on issues of sustainable development and environmental protection in the Arctic. The project was implemented by Pure Earth Blacksmith Institute, New York in cooperation with specialists in Russia.

PROBLEM STATEMENT

Obsolete pesticides (OPs) pose a significant environmental and health concern in the region, stemming from overuse and mismanagement of pesticides during the Soviet era. Many of the chemicals of concern are now deregistered locally, banned internationally or unusable because of long-term storage leading to degradation. It is estimated that around half of the world’s quantities of obsolete pesticides can be found in the former Soviet Union. In addition, some industrial sites in the region rank among the world’s most polluted places, exposing the populations to pollution from hazardous chemicals and heavy metals. This pollution presents a transboundary issue as pollutants migrate across borders and spread in the Arctic Region.

PURE EARTH (BLACKSMITH INSTITUTE)

Pure Earth (Formerly Blacksmith Institute) is an engineering-based charity with head offices in New York and London. Pure Earth is focused on mitigating health risks posed by poorly managed hazardous waste and hazardous chemical contamination in low- and medium-income countries. To date, Pure Earth has implemented more than 50 projects in 20 countries.

An important program of Pure Earth is the Toxic Sites Identification Program (TSIP). This program began in 2009 and is an effort implemented jointly by Blacksmith and the United Nations Industrial Development Organization (UNIDO). The goal of the TSIP program is to identify and rapidly assess contaminated sites that potentially pose human health risks. The TSIP has been supported by the European Commission, the World Bank, the Asian Development Bank and Green Cross Switzerland, among others. To date more than 3,000 contaminated sites have been visited and sampled by trained investigators.

Figure 1 shows sites contained in Pure Earth’s TSIP database. Blue dots indicate sites that have been visited by trained investigators. Black dots indicate sites that have been identified though not yet visited.

The TSIP utilizes a rapid risk assessment methodology to evaluate risks posed by contaminated sites. As part of an Initial Site Screening (ISS), trained investigators visit sites, collect samples, take photographs and document site history. Completed ISSs are uploaded into a secure online database where they receive a relative risk ranking to aid in prioritization.

METHODS

The Rapid Environmental Assessment (REA) is a tool developed by United Nations Food and Agriculture Organization (FAO) to prioritize pesticide contaminated sites for further intervention. Under contract with FAO in 2012, Pure Earth Blacksmith Institute modified the REA and carried out field trials on pesticide contamination sites in Vietnam. Five separate rapid assessment protocols, including the Blacksmith TSIP Initial Site Assessment, were reviewed. Where appropriate concepts from each were integrated into the REA.
The resulting product is comprised of two distinct phases. The first phase is a “Desk Screen”, that utilizes limited site information and pre-existing GIS layers to prioritize sites for visits. Information on the soil type, nearby populations, the slope of the area, pesticide type and quantity and other information are used in an algorithm to determine visit priority. The desk screen is necessary because government or other agencies generally will not have the funds or resources to do site visits and assessments at all sites, so need a way to focus their limited resources on the sites most likely to present significant risks.

The second phase, the REA, is comprised of a site visit and a site-specific sampling and assessment protocol. During a visit of typically 1-2 days, interviews are conducted with people knowledgeable of the site, and then samples are collected, photographs are taken, and a series of objective technical questions are answered in a uniform format. Completed REAs are uploaded into a secure online database. The database uses three separate algorithms to calculate relative risks; specifically risks related to Source, Pathway, and Receptor.

The project was conducted in three regions of Russian Federation: Krasnoyarsky Krai, Arkhangelsk Oblast and Komi Republic. The objective was to conduct at least two assessments in each region.

The project partners and potential investigators were identified in each region. The project started with a training workshop in Krasnoyarsk in order to introduce the project and train investigators of all three regions. Appendixes 1 and 2 show the REA input fields and database screens.

After the workshop the investigators conducted the field assessments. The collected soil samples were submitted to a certified laboratory. The collected data and results of the analyses were uploaded to the REA Database maintained by FAO and also to the database of the Toxic Sites Identification Program maintained by Blacksmith Institute/Pure Earth. The data will be verified for the compliance with the REA protocol and assessments will be approved by qualified personnel of Blacksmith Institute Pure Earth.

Top row: Fig. 1. Preparing for the workshop; Fig. 2. Marina Klimova opens the workshop; Fig. 3. Demonstration of personal protective equipment
Bottom row: Fig. 4. Petr Sharov delivers a presentation at the workshop; Fig. 5. Workshop participants

CREDIT: PETR SHAROV
PROGRAM AND ACTION PLAN

The main project activities and indicators are listed below.

1. One regional training workshop
2. At least 90 soil samples tested for obsolete pesticides in a certified laboratory
3. At least 6 site assessments according to REA protocol

Project Deliverables:

- 9 site assessments reports
- Project Narrative report
- Project Financial report

PROJECT BACKGROUND

Pure Earth Blacksmith Institute operated in Russia since 2004 and since 2009 implemented TSIP in Russia and assessed 175 sites contaminated with various persistent pollutants. In 2013-2015 Pure Earth Blacksmith Institute in collaboration with FAO implemented EU-funded project «Improving capacities to eliminate and prevent recurrence obsolete pesticides as a model for tackling unused hazardous chemicals in the former Soviet Union» (CP/RER/040/EC). This project included assessments of sites contaminated with obsolete pesticides and development of REA protocol for that purpose. The developed REA protocol was largely based on TSIP ISS protocol for assessment of contaminated areas, but was designed to provide more accurate assessment of pesticide contamination.

Earlier in the Russian Federation, from 2001 to 2012, the ACAP / CMP Russia Program “Environmentally sound management of obsolete pesticides in the Russian Federation” was implemented. The Program included the inventory of prohibited and obsolete pesticides, their identification, repackaging, transportation to safe storage sites, repair and construction of new safe storage sites. This work was conducted in thirteen regions of Russian Federation. About 7000 tons of obsolete pesticide stocks, including DDT, were discovered. In some ways this work was similar to TSIP activities.

Based on the positive experience of project ACAP / Russia “Environmentally sound management of obsolete pesticides in the Russian Federation”, it was decided to implement in Russia the demonstration project to train environmental specialists the internationally accepted REA site assessment protocol. This project was scheduled for implementation in 2020.

The ACAP/ Blacksmith Institute Rapid Environmental Assessment Demonstration Project included training of specialists and conducting assessments in 3 regions that participated in previous ACAP project (2001-2012): Arkhangelsk Oblast, Komi Republic and Krasnoyarskiy Krai.

Figure 7. Workshop participants in the field.

CREDIT: PETR SHAROV
PROJECT IMPLEMENTATION

PREPARATORY STAGE

Several agreements with the partners of the selected regions were signed to coordinate the project work. The project implementation was coordinated by Dr Petr Sharov, Regional Director of the Blacksmith Institute Program in Eastern Europe and Central Asia and Marina Klimova, Project Coordinator. The project preparations and implementation were coordinated with Timo Seppala, the Chairman of the ACAP Expert Group on waste.

It was decided to hold a two-day workshop in Krasnoyarsk. This region received the highest performance rating in ACAP/Russia Project (2001-2012). Also, it was logistically easier to gather workshop participants in Krasnoyarsk.

In the preparatory period Marina Klimova sent letters to the interested project participants and Aleksandr Pokhodin, First Vice Minister of Agriculture and Trade of Krasnoyarskiy Krai, to inform about the planned workshop, and to invite them to participate. After obtaining consent from officials to hold the workshop and practical training in Krasnoyarsk, the Workshop Agenda (Appendix 03) was developed and on July 2, 2019, invitation letters were sent to the selected regions of the Russian Federation with invitations to participate in the ACAP/Blacksmith Institute Project. At that time the main project participants had been identified; two of them were actively involved in the previous ACAP/Russia Project: Kuligin V.D. (Krasnoyarsk) and Shestopalova N.S. (Komi Republic), and Kosareva E.N. (Arkhangelsk, replaced the Director of the FGBU station of the agrochemical service “Arkhangelskaya” G.E. Antropova, who retired during the project preparation). The project participants received information letters, Workshop Agenda, and “Investigator’s Guide to Rapid Environmental Assessment (REA)” in Russian.

As per ACAP recommendation the project team also invited E.V. Tretyakov (Director of the Regional Center of the Stockholm Convention in the Russian Federation, Deputy Director of the Novosibirsk Institute of Organic Chemistry N. N. Vorozhtsov Siberian Branch of the Russian Academy of Sciences, Novosibirsk ) and A. A. Nefedov (Senior Researcher at Novosibirsk Institute of Organic Chemistry ) to participate in the workshop. It turned out because of their schedules and COVID complications they could not come in person, so they joined online using zoom.

TRAINING WORKSHOP

The ACAP “Rapid Environmental Assessment Demonstration Project” workshop was held on 23-24 August 2020 in Krasnoyarsk Hotel. The workshop organization followed Government and World Health Organization instructions regarding COVID safety. Everybody’s temperature was scanned and the room allowed enough space between people. In addition to main project participants the project team invited Krasnoyarsk specialists in agriculture and environmental assessment to participate. The full list of the workshop participants is presented in Appendix 4.

On the first day the participants learned about:

• the objectives, structure of the ACAP / Blacksmith Institute,
• the role of the Project participants and government agencies,
• REA methods
• current efforts and projects related to the safe management of stockpiles of obsolete pesticides: storage, disposal, impact on the environment and human health, cleanups.

Workshop participants received in electronic and printed forms “Investigator’s Guide to Rapid Environmental Assessment” and “TSIP Investigator’s Handbook”. These documents describe the process of REA, collecting data and uploading to the online database.

There were 4 presentations of current efforts and projects on the problem of obsolete pesticides in different regions, including the overview of the ACAP/Russia project. After these presentations, the workshop participants actively discussed the problem of managing stocks of obsolete pesticides and agreed that presently there is no proper control over the storage and movement of old stocks of pesticides and potential cleanups.

On the second day in the morning the participants went to Minino Village in Emelyanovsky District to practice field activities of site characterization, soil sampling, compliance with personal safety rules, etc. The participants were given protective suits, goggles, gloves, boots, shovels, and containers for soil sampling. Dr V.N. Romanov, Researcher of the “Krasnoyarsk Research Institute of Agriculture” provided physical and historical description of the site to the workshop partici-
participants. During the field session P. Sharov showed how to properly assess the site, assess migration of contaminants, exposure pathways, accessibility, roads, proximity to residential and industrial areas, water bodies, etc. He showed how to take coordinates of sample locations and sectors using Global Positioning System (GPS), how to define different sampling sectors, and showed techniques of collecting target and composite soil samples.

After the completion of the field work, the workshop participants visited the Accredited Laboratory of the Center for Environmental Research and Audit, which has all the necessary equipment for sampling and analysis of chemicals of any hazard class. This laboratory was later used to analyze the samples collected during assessments in Krasnoyarskiy kray.

In the afternoon the workshop was continued. Dr Sharov demonstrated how to upload the information obtained from the demo site assessment into the online database. At the end of the workshop the participants were given Certificates of Completion.

SITE ASSESSMENTS

The next stage of the work was to identify sites for assessment in three selected regions of the Russian Federation and conduct the assessments. In each region three sites were selected and assessed. For selection of the sites the researchers used knowledge from the previous ACAP/Russia project “Environmentally sound management of obsolete pesticides in the Russian Federation”. The researchers found that there were significant changes over the past 8-10 years since the previous ACAP Project. Many pesticide storage sites, including warehouses, were destroyed, areas were leveled, often occupied by various buildings, pesticides were removed, the locations where the removed pesticides were taken often unknown.

When selecting sites the project participants used the guidance from the REA manuals, to take note of the following criteria:

- The presence of landfills, warehouses, including destroyed, former storage sites for stocks of obsolete pesticides;
- Stocks of obsolete pesticides in storage areas (warehouses, dumps, etc.);
- Information on the presence in the of pesticides, persistent organic pollutants, including DDT;
- Accessibility of sites for survey;

After conducting field assessments the collected soil samples were sent for analyses to two laboratories:

- FGBU State Agrochemical Service Center “Vologda” ACCREDITED TESTING LABORATORY (160555, city of Vologda, Student Street, 11, agrohim351@mail.ru) Samples from the Komi Republic and Arkhangelsk Region were sent here.

- LLC “Center for Environmental Research and Audit” Accredited Testing Laboratory (660041, Krasnoyarsk Territory, Krasnoyarsk, Svobodny Ave., 72a, room 115, ceria@list.ru). Samples from the Krasnoyarsk Territory were sent here.

After the analyses of the soil samples were completed the site assessment information was finalized in the database and translated into English. The Site assessment reports are provided in Appendix 5.

MAJOR FINDINGS

- The number of old and unsafe storage facilities are many in the Russian Federation in the Arctic region. The results indicate that the pesticides management activities provided results and that only limited pollution is detected in surroundings.

- The remaining pollution of the 2 analyzed groups of toxic substances (DDT and its transformation products and HCH and its isomers) is mainly below the Russian limit values at these 9 sites.

- The investigators found contamination that exceeded the safety standards established in Russia for DDD, a transformation product of DDT, only at one out of 9 assessed former pesticide storages.

- These results show that REA methods could be used to conduct inventory of sites potentially contaminated with pesticides at reasonable costs. The project demonstrated the use of the tools and trained experts to continue assessments of remaining storages in the regions.

- The pilot project should preferably be followed up at the national level with a specific program to clean-up similar sites by applying these tools.
Figure 8. Taking soil samples

Figure 9. Writing sample log

Figure 10. Taking GPS coordinates of the soil sample and writing sample log

Figure 11. Visiting the Laboratory of the Center for Environmental Research and Audit

Figure 12. Distribution of Completion Certificates

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LESSONS LEARNED
The project showed that REA protocol could be used in Russia for assessment of sites contaminated with obsolete pesticides.

NEXT STEPS
The next step is to conduct a close-out workshop in a different Arctic region of Russia to share the project results and provide additional training to more people.
Предварительное исследование
*Desk Screen*

Имя участка: ____________________________
*(Site Name)*
Страна: ____________________________
*(Country)*
Регион: ____________________________
*(Province)*
Широта: ____________________________
*(Latitude)*
Долгота: ____________________________
*(Longitude)*
Основной пестицид: ____________________________
*(Suspected Primary Pesticide)*

Загрязнитель 1 (*Contaminant 1*): ________________

<table>
<thead>
<tr>
<th>Проба# (<em>Sample #</em>)</th>
<th>Среда пробы (<em>Sample Media</em>)</th>
<th>Целевая/Сборная (<em>Targeted/ Composite</em>)</th>
<th>Результаты (<em>Results</em>)</th>
<th>Кол-во человек, подверженных риску воздействия загрязнителей (<em>Population at Risk</em>)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Проба 1 (<em>Sample 1</em>)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Проба 2 (<em>Sample 2</em>)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Проба 5 (<em>Sample 5</em>)</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Кол-во человек, которые также могут быть подвержены риску (*Additional population at risk*)

Суммарное кол-во человек (*Total*)
Возможная среда пробы (Possible Sampling Media)

<table>
<thead>
<tr>
<th>Медиа</th>
<th>Медиа</th>
</tr>
</thead>
<tbody>
<tr>
<td>вода - питьевая (мкг/л)</td>
<td>почва – в сельскохозяйственной зоне (мг/кг)</td>
</tr>
<tr>
<td>вода - для рыбалки (мкг/л)</td>
<td>почва – в промышленной зоне (мг/кг)</td>
</tr>
<tr>
<td>вода - для ирригации (мкг/л)</td>
<td>моча (мкг/л)</td>
</tr>
<tr>
<td>воздух - на рабочем месте (8 ч) (мкг/м³)</td>
<td>кровь (мкг/л)</td>
</tr>
<tr>
<td>почва - в жилой зоне (мг/кг)</td>
<td>волосы (мг/кг)</td>
</tr>
<tr>
<td>еда (мг/кг)</td>
<td>еда (мг/кг)</td>
</tr>
</tbody>
</table>

**Время последнего использования пестицидов:** ______________________________
*(Last Time Pesticides were used)*

**Частота использования пестицидов:** ______________________________
*(Frequency of Pesticide Use)*

---

**Общее описание**

**General Background**

Исследователь: ________________________________
*(Site Investigator)*

(Количество исследований, проведенных вышеупомянутым исследователем) __________
*(Number of Investigations Completed Previously by Above Named Investigator)*

Дата оценки (день/месяц/год): ______________
*(Investigation Date (DD/MM/YY))*

Почему на этом участке предполагается загрязнение пестицидами?
*(For what reason is the site suspected to be contaminated with pesticides?)*

- ☐ Место утечки пестицидов *(Location of pesticide spillage)*
- ☐ Сельскохозяйственное производство *(Agricultural production)*
- ☐ Земля использовалась для хранения пестицидов *(The land been used as a pesticide storage site)*
- ☐ Земля использовалась для формирования пестицидов *(The land been used as a pesticide formulation site)*
- ☐ Земля использовалась для захоронения *(The land been used as a burial site)*
Владельцы направления: ________________________________
(Site Owner)

Контактная информация владельца участка:
(Site Owner Contact Information)

Ближайшая больница:
(Nearest Hospital/ Health Clinic)

дополнительная информация:
(Additional information)

**Тип и количество**
(Type and Quantity)

Другие загрязнители
(Other Contaminants)

Время последнего использования пестицидов
(Last time pesticides were in use?)
  ○ до 30 дней (Within 30 days)
  ○ до 1 года (Within 1 year)
  ○ 1-2 года (1-2 years)
  ○ 2-5 лет (2-5 years)
  ○ 5-10 лет (5-10 years)
  ○ более 10 лет (More than 10 years)
Частота использования пестицидов? 
(Frequency of pesticide use?)
- Однократно (Only once)
- Иногда (Occasional use)
- Часто (Frequent use)
- Участок использовался/используется для хранения пестицидов (The site was/is used for storage of pesticides)

Пестициды до сих пор используются? 
(Are pesticides still used?)
- Нет (No)
- Да (Yes)

Количество используемого пестицида?
(What quantity of pesticides were used?)
- Малое количество (Small Quantity)
- Средний Количество (Medium Quantity)
- Большое количество (Large Quantity)
- Very Large quantity (Very Large)

Масштаб загрязнения на участке
(Describe the extent of staining on the site)
- Нет признаков пятен (No sign of staining)
- Небольшое окрашивание/пятнистость (Surface slightly discoloured / stained)
- Значительное окрашивание из-за пестицида (Surface completely discoloured due to pesticide)
- Поверхность видимо насыщена пестицидом (Surface saturated with pesticide (visibly moist))

Примерная площадь загрязненной территории? _________ кв. м.
(What is the approx. surface area in m2 suspected of being contaminated?)

Глубина загрязнения (м)? _________
(What is the estimated depth of contamination (in metres)?)

Проводилась ли оценка глубины распространения загрязнения? _________ м
(Was a test pit dug to determine depth of contamination? )
- Нет (No)
- Да (Yes)
Распространено ли загрязнение на другие среды?
(Has the contamination spread into more than one media?)
- Нет (No)
- Да (Yes)

Присутствует ли сильный запах?
(Is there a strong smell associated with the site attributed to contamination?)
- Нет (No)
- Да (Yes)

<table>
<thead>
<tr>
<th>Загрязнитель 2 (Contaminant 2):</th>
<th>Проба# (Sample #)</th>
<th>Среда пробы (Sample Media)</th>
<th>Целевые/Сборная (Targeted/Composite)</th>
<th>Результаты (Result)</th>
<th>Кол-во человек, подверженных риску воздействия загрязнителей (Population at Risk)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Проба 1 (Sample 1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Проба 2 (Sample 2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Проба 3 (Sample 3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Проба 4 (Sample 4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Проба 5 (Sample 5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Кол-во человек, которые также могут быть подвержены риску (Additional population at risk)
- Суммарное кол-во человек (Total)
Риск распространения
(Release Risk)

Введите среднее ежегодное количество осадков в мм (7500 мм максимум) __________
(Enter annual average rainfall in mm (7500 mm max))

Означает ежегодную среднюю скорость ветра (Mean Annual Wind speed)
- низкая <4,5 м в секунду) (Low <4,5 m per sec)
- средняя 4,5 - 7,5 м в секунду) (Medium 4,5 - 7,5 m per sec)
- высокая >7,5 м в секунду) (High >7,5 м per sec)

Средняя температура лета (Average temperature summer) __________
Средняя температура зимы (Average temperature winter) __________

Есть ли на участке постоянные водоемы? (Is there permanent surface water on the site i.e. pools or ponds?)
- Нет (No)
- Да (Yes)

Для чего используется сегодня? (What is it used for?)
- Другое (Other)
- Незвестно (Unknown)
- Ирригация (Irrigation)
- Рыболовство (Fishing)
- Купание (Bathing/Washing)
- Питьевая (Drinking)

Есть ли грунтовые воды?
(Is there evidence of a high water table or ground water?)
- Нет (No)
- Да (Yes)

Глубина до ближайшего водного слоя? __________ meters
(What is the depth to the top of the water table?)

Находится ли участок в пойме?
(Is the site in a flood plain?)
- Нет (No)
- Да (Yes)
Расстояние до ближайшего колодца?
*(Where is the closest river or water body?)*
- Нет воды поблизости *(No water source in vicinity)*
- В 500 м от загрязнения *(Within 500m of contamination)*
- В 100 м от загрязнения *(Within 100m of contamination)*
- В 50 м от загрязнения *(Within 50m of contamination)*
- Проходит через загрязненный участок *(Running through the contaminated site)*

Расстояние до ближайшего колодца?
*(Where is the closest well?)*
- Нет колодца поблизости *(No well in vicinity)*
- В пределах 500 м от загрязнения *(Within 500m of contamination)*
- В пределах 100 м от загрязнения *(Within 100m of contamination)*
- В пределах 50 м от загрязнения *(Within 50m of contamination)*

Направление?
*(In which direction?)*
- Север *(North)*
- Северо-восток *(Northeast)*
- Восток *(East)*
- Юго-восток *(Southeast)*
- Юг *(South)*
- Юго-запад *(Southwest)*
- Запад *(West)*
- Северо-запад *(Northwest)*

Известно ли или предполагается что грунтовые воды текут в сторону колодцев, рек, болот, угодий?
*(Is ground water known or suspected to flow towards identified receptors eg wells, wetlands, rivers, fields etc.?)*
- Не знаю *(Do Not Know)*
- Нет *(No)*
- Да *(Yes)*

Тип почвы
*(What is the soil type?)*
- Латериты *(Lateritic)*
- Глина *(Clay)*
- Вулканические *(Volcanic)*
- Суглиняк *(Loam)*
- Песок *(Sandy)*
- Галька *(Gravel)*
Глубина почвенного слоя
(What is the depth of soil to the strata beneath?)
- 1m
- 3m
- 5m
- 10m
- >10m

Тип скалистого субстрата
(What is the bedrock type?)
- Осадочная (Sedimentary rock)
- Метаморфическая (Metamorphic rock)
- Вулканическая (Igneous rock)

Положение загрязнителей относительно склона
(Where is the position of the contaminant(s) relative to the slope?)
- Выше уровня земли и уклон кругой (Contaminants above ground level and slope is steep)
- На или ниже уровня земли и уклон кругой (Contaminants at or below ground level and slope is steep)
- Выше уровня земли и уклон средний (Contaminants above ground level and slope is intermediate)
- На или ниже уровня земли и уклон средний (Contaminants at or below ground level and slope is intermediate)
- Выше уровня земли и уклона нет (Contaminants above ground level and slope is flat)
- На или ниже уровня земли и уклона нет (Contaminants at or below ground level and slope is flat)
- Не знаю (Do Not Know)

Прокладывались ли в этом месте каналы, кабели, трубы и т.п. после появления загрязнения
(Has the ground surface been disturbed, for example, to install drainage channels, pipes, cables etc since contamination?)
- Нет  (No)
- Да   (Yes)

Случались ли в этом месте аварии со значительным загрязнением среды?
(Have there been any significant releases such as accidents?)
- Нет  (No)
- Да   (Yes)
Как применялись пестициды?
(How were the pesticides applied?)

- вручную (By Hand)
- механически, укажите способ (Mechanically, specify machine)

Какое основное направление ветра?
(What is the prevailing wind direction?)

- Север (North)
- Северо-восток (Northeast)
- Восток (East)
- Юго-восток (Southeast)
- Юг (South)
- Юго-запад (Southwest)
- Запад (West)
- Северо-запад (Northwest)

Загрязнитель 1 (Contaminant 1)

Если без контейнеров, то выберите
(Number of Containers): __________

Если свалено в груды, то оцените количество
(If no containers, select)
- кучи (Uncontained piles)
- следы и остатки (Residue or spills only)

Если свалено в груды, то оцените количество
(If Uncontained piles, estimate quantity)
размер контейнеров (упаковки) (Size of Containers (in litres)) __________
тип контейнера (упаковки) (Type of Container)

- Металл или бочка (Steel or metal drum)
- Металл или банка (Metal can or pail)
- Пластик. Бочка (Plastic drum)
- Пластик. Банка (Plastic pail)
- Картон (Paper container)
- Другое (Other)

формула (Formulation)
- твердая (Solidified)
- порошок (Powder)
- Жидкая (Liquid)

если раствор, то укажите растворитель: ________________
(if liquid, identify dilutant)
если известна, то укажите концентрацию пестицида: ________________
(Specify concentration of Pesticide if known)

возраст контейнера
(Container Age)
- 1-5 года (years)
- 5-10 года (years)
- 10-20 года (years)
- >20 года (years)

состояние контейнера
(Container Condition)
- Отличное (Excellent)
- Хорошее (Good)
- Среднее (Moderate)
- Плохое (Poor)
- Очень плохо (Very Poor)

метод идентификации
(Identification Method)
- Хорошая, читаемая маркировка (Good, legible labels)
- Перечень, записи (Inventory or written records)
- Плохоразличимая маркировка (Unreliable labels)
- Словесное неофициальное описание (Verbal or informal records)

местонахождение
(Location)
- В здании с хорошей крышей (Inside building with good roof)
- В здании с плохой крышей (Inside building with poor roof)
- Снаружи (Outdoors)
- Под землей (Below ground)

если здание, выберите из списка
(If building, select)
- Хорошие стены (Good Walls)
- Слабые, полуразрушенные стены (Incomplete or poor walls)

если навес, выберите из списка
(If cover, select)
- Тарпаулин или пластик в хорошем состоянии
  (Tarpaulin or plastic in good condition)
- Иное или плохой покров (Other or poor cover)
- Нет покрова (No cover)
Риск для здоровья
(Receptor Risk)

Тип землепользования в ближайшем будущем
(What is the land use for the foreseeable future?)

- Удаленная незастроенная территория (Remote wilderness)
- Промышленная - включая длительное использование пестицидов (Industrial (inc. for continued use of pesticides))
- Легкая промышленность/коммерция (Light Industrial/Commercial)
- Сельское хозяйство (Agricultural)
- Парк (Parkland)
- Жилая зона (Housing / residential)
- Школы, детские сады, больницы (Critically Sensitive Receptors (Schools, Hospitals, etc))

Укажите число людей в следующих категориях
(List the number of people in the following categories)

<table>
<thead>
<tr>
<th></th>
<th>На участке (On Site)</th>
<th>В пределах 50 м (Within 50 Meters)</th>
<th>В пределах 100 м (Within 100 Meters)</th>
<th>В пределах 500 м (Within 500 Meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Живут (Live)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Работают (Work)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Посещают (Visit)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Доступность участка для сельскохозяйственных животных или охотничьей дичи?
(Is the site accessible to animals that are later consumed by humans?)

- с/х животные/рыба на участке (food animals/ fish on site)
- с/х животные/рыба в пределах 100 м от участка (food animals/ fish within 100m)
- есть доступ домашних животных (accessible to occasional food animals)

Расстояние до морской или пресноводной охраняемой территории?
What is the distance to a sensitive marine or freshwater ecological area?

- > 5 км (> 5 km)
- 1 км до 5 км (1 km to 5 km)
- 300 м до 1 км (300 m to 1 km)
- 0 до 300 м (0 to 300 m)
Rapid Environmental Assessment Demonstration Project in Russia

(How close is water from the site to be used as source of potentially contaminated drinking or bathing water)

○ > 5 km (> 5 km)
○ 1 km до 5 км (1 km to 5 km)
○ 300 м до 1 км (300 m to 1 km)
○ 0 до 300 м (0 to 300 m)

В каком направлении? (In which direction?)

○ Север (North)
○ Северо-восток (Northeast)
○ Восток (East)
○ Юго-восток (Southeast)
○ Юг (South)
○ Юго-запад (Southwest)
○ Запад (West)
○ Северо-запад (Northwest)

Возможен ли контакт загрязненной почвы с людьми? (What is the water used for?)

○ Другое (Other)
○ Неизвестно (Unknown)
○ Ирригация (Irrigation)
○ Рыболовство (Fishing)
○ Купание (Bathing/Washing)
○ Питьевая (Drinking)

Возможен ли контакт загрязненной почвы с людьми? (Is human ingestion of contaminated soils possible?)

○ Нет (No)
○ Да (Yes)

Опишите пастбище вокруг загрязненной территории (Describe the grazing pattern around the contaminated area)

○ Животные не пасутся в пределах 100 м от участка (No animals graze within 100m of the area)
○ Животные пасутся в пределах 100 м от участка (Animals graze/feed within 100m of the area)
○ Животные пасутся в пределах 10 м от участка (Animals graze/feed within 10m of the area)
○ Животные пасутся на загрязненном участке (Animals graze/feed in the contaminated area)
Как далеко сельскохозяйственные поля от загрязненной территории
(Describe how far crops are produced from the contaminated area)

- Не расположены в пределах 100 м
  (No crops are produced within 100m)
- Расположены в пределах 100 м (Crops are produced within 100m of the contaminated area)
- Расположены в пределах 10 м
  (Crops are produced within 10m of the contaminated area)
- Расположены на загрязненной территории
  (Crops are produced in the contaminated area)

В случае загрязнения воды, есть ли альтернативное водоснабжение?
(In the event that water on-site is contaminated, is an alternative water supply for drinking and bathing readily available?)

- Не подозревается загрязнение в воде (Water not suspected of being contaminated)
- Нет  (No)
- Да  (Yes)

Возможен ли кожный контакт с водой, осадками или почвой?
(Is dermal contact with contaminated surface water, groundwater, sediments or soils anticipated?)

- Нет  (No)
- Да  (Yes)

Как далеко сельскохозяйственные поля, животные или люди по направлению доминирующих ветров?
(How far away are crops, animals or humans downwind of the site?)

- Не расположены в пределах 100 м
  (No crops are produced within 100m)
- Расположены в пределах 100 м (Crops are produced within 100m of the contaminated area)
- Расположены в пределах 10 м
  (Crops are produced within 10m of the contaminated area)
- Расположены на загрязненной территории
  (Crops are produced in the contaminated area)
Опишите доступность загрязненной территории для людей
(What is the access to the contaminated area like?)

- Контролируемый ограниченный доступ (Controlled access; entry difficult)
- Удаленная местность, менее доступна (Remote locations; less accessible)
- Умеренный доступ (Moderate access; entry more difficult)
- Легкий доступ (Easy access; few barriers to entry)

Насколько местное население зависит от местных природных ресурсов (вода, еда и т.п.)
(Strength of reliance of local people on natural resources for survival (i.e., food, water, shelter, etc.))

- Люди используют ресурсы в пределах 200 м от участка (People use resources from within 200m of the site)
- Люди используют ресурсы в пределах 50 м от участка (People use resources from within 50m of the site)
- Люди используют ресурсы в пределах 20 м от участка (People use resources from within 20m of the site)
- Люди используют ресурсы на участке (People use resources from the site)

Опишите характер растительного покрова загрязненной территории
(Describe the ground cover over the contaminated area)

- Участок покрыт бетоном и т.п. (The site is covered by a concrete slab or other type of engineering)
- Трава и иная растительность (There is complete grass cover and other vegetation)
- Редкий травянистый покров (There is sparse grass cover)
- Голая земля (The contaminated area is bare)
ANNEX 2: REA KEY DATA

INPUT SCREENS
### Type and Quantity

<table>
<thead>
<tr>
<th>Score - Priority</th>
<th>8 - LOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Contaminants</td>
<td>Hexachlor (not in law) or, B, PCB</td>
</tr>
<tr>
<td>Are pesticides still used?</td>
<td>No</td>
</tr>
<tr>
<td>Quantity of pesticide use</td>
<td>Medium</td>
</tr>
<tr>
<td>Extent of staining on the site</td>
<td>Surface slightly discolored / stained</td>
</tr>
<tr>
<td>Approx surface area of the contaminated site</td>
<td>100 - 500 m²</td>
</tr>
<tr>
<td>Exact surface area (if known)</td>
<td>100.00 m²</td>
</tr>
<tr>
<td>Estimated depth of contamination</td>
<td>0 meters</td>
</tr>
<tr>
<td>Was a test pit dug to determine depth of contamination?</td>
<td>No</td>
</tr>
<tr>
<td>Has the contamination spread into more than one media?</td>
<td>No</td>
</tr>
<tr>
<td>Is there a strong smell associated with the site attributed to contamination?</td>
<td>No</td>
</tr>
</tbody>
</table>

### General Background

<table>
<thead>
<tr>
<th>Name of Investigator</th>
<th>Ruzanna Grigoryan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of REAs completed</td>
<td>2</td>
</tr>
<tr>
<td>Investigation Date (DD/MM/YY)</td>
<td>27/08/14</td>
</tr>
<tr>
<td>Why is the site believed to be contaminated?</td>
<td>The land has been used as a pesticide storage site</td>
</tr>
<tr>
<td>Site Owner</td>
<td>Private</td>
</tr>
<tr>
<td>Site Owner Contact Information</td>
<td>Not identified</td>
</tr>
<tr>
<td>Nearest Hospital / Health Clinic</td>
<td>Vardanig hospital and Vardanig polyclinic</td>
</tr>
<tr>
<td>Is the REA complete?</td>
<td>Yes</td>
</tr>
<tr>
<td>Has anyone conducted repackaging, remediation or other cleanup work at the site?</td>
<td>No</td>
</tr>
<tr>
<td>Physical Description / Additional Information</td>
<td>Prior industrial area near the site, which is agricultural now. There are no walls or fences surrounding the point. There is some staining on the surface of the area (seems to be</td>
</tr>
</tbody>
</table>
## File Upload

<table>
<thead>
<tr>
<th>#</th>
<th>File Type</th>
<th>Description</th>
<th>Time Uploaded</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>doc</td>
<td>sample log</td>
<td>2015-06-18 12:35:14</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>2</td>
<td>doc</td>
<td>Laboratory results: D</td>
<td>2015-06-12 09:00:42</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>3</td>
<td>doc</td>
<td>Laboratory results: C</td>
<td>2015-06-12 09:00:25</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>4</td>
<td>doc</td>
<td>Laboratory results: B</td>
<td>2015-06-12 09:00:11</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>5</td>
<td>doc</td>
<td>Laboratory results: A</td>
<td>2015-06-12 08:59:33</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>6</td>
<td>doc</td>
<td>Sampling map</td>
<td>2014-12-03 08:34:25</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>7</td>
<td>image</td>
<td>Other constructions in the area</td>
<td>2014-11-05 04:19:50</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>8</td>
<td>image</td>
<td>Fields surrounding the area and community in the distance</td>
<td>2014-11-05 04:12:53</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>9</td>
<td>image</td>
<td>View of fields in proximity</td>
<td>2014-11-05 04:11:54</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>10</td>
<td>image</td>
<td>Irrigation water running through the site</td>
<td>2014-11-05 04:10:06</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>11</td>
<td>image</td>
<td>Vegetation covering the area</td>
<td>2014-11-05 04:08:01</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>12</td>
<td>image</td>
<td>Collapsed buildings</td>
<td>2014-11-05 04:06:36</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>13</td>
<td>image</td>
<td>Distant view of the site and buildings</td>
<td>2014-11-05 04:05:15</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>14</td>
<td>image</td>
<td>Road from the site, surrounded by crops</td>
<td>2014-11-05 04:02:33</td>
<td>view, update, delete</td>
</tr>
<tr>
<td>15</td>
<td>image</td>
<td>View of the area</td>
<td>2014-11-05 04:00:41</td>
<td>view, update, delete</td>
</tr>
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</table>
## ANNEX 3: TRAINING WORKSHOP AGENDA

**August 23, 2020**

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
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</tr>
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<tbody>
<tr>
<td>10:00-10:15</td>
<td>Introductions</td>
<td>Meeting Agenda, Klimova M., Sharov P.</td>
</tr>
<tr>
<td></td>
<td>Self Introduction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Goals and structure of the workshop: Understand the project, role of government, Rapid Environmental Assessment methodology, conduct example site assessment, learn to use database</td>
<td></td>
</tr>
<tr>
<td>10:15-10:45</td>
<td>Project overview</td>
<td>Presentation, Sharov P.</td>
</tr>
<tr>
<td></td>
<td>Background: introduction to the project goals and structure, roles of participants</td>
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</tr>
<tr>
<td></td>
<td>Project Scope and Activities: geographic scope; types of pesticides; other project components</td>
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<tr>
<td></td>
<td>Follow-up/feedback: What happens after Rapid Environmental Assessments?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Using the Data: Prioritizing sites for remedial planning</td>
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</tr>
<tr>
<td>10:45-11:00</td>
<td>Tea Break</td>
<td></td>
</tr>
<tr>
<td>11:00-11:30</td>
<td>Previous/Ongoing Inventory &amp; Clean-Up Projects</td>
<td>Presentation, Klimova M., Kuligin V., Shestopalova N., Kosareva E.</td>
</tr>
<tr>
<td></td>
<td>Review of ongoing efforts and projects regarding obsolete Pesticides: local, national and international programs to identify, assess, repackage and clean-up obsolete pesticides</td>
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</tr>
<tr>
<td>11:30-12:00</td>
<td>Chemicals &amp; Environmental Health</td>
<td>Presentation, Sharov P.</td>
</tr>
<tr>
<td></td>
<td>Review of relevant environmental health issues:</td>
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<tr>
<td></td>
<td>Hazards and risks</td>
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<td>Types of pesticides</td>
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<td>Pathways into the body</td>
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<td>Dose response</td>
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<td></td>
<td>Other environmental health issues related to pesticides</td>
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<tr>
<td>12:00-13:00</td>
<td>Rapid Environmental Assessment (REA) Methodology</td>
<td>Presentation &amp; Investigator Handbook, Sharov P.</td>
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<tr>
<td></td>
<td>TSIP methodology and database</td>
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<td>Conducting Assessments:</td>
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<tr>
<td></td>
<td>Before the assessment (research and preparation)</td>
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<td></td>
<td>Necessary equipment</td>
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<tr>
<td></td>
<td>During the assessment (collecting information)</td>
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<tr>
<td></td>
<td>After the assessment (entering information into database)</td>
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<tr>
<td>13:00-14:30</td>
<td>Lunch Break</td>
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</tr>
<tr>
<td>Time</td>
<td>Topic</td>
<td>Presenter</td>
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<tr>
<td>14:30-16:00</td>
<td>Sampling</td>
<td>Sharov P.</td>
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<tr>
<td></td>
<td>Choosing a sampling method based on the site characteristics</td>
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<td>Where to sample</td>
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<td>Sampling equipment</td>
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<td>How to take samples</td>
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<td>How many samples to take</td>
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<td>How to store samples</td>
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<td></td>
<td>Where to send samples for analysis</td>
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<tr>
<td>16:00-16:30</td>
<td>Using the Online Database</td>
<td>Sharov P.</td>
</tr>
<tr>
<td></td>
<td>Demonstration of how to enter site information into the online REA database</td>
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<tr>
<td>16:30-16:45</td>
<td>Tea Break</td>
<td>Sharov P.</td>
</tr>
<tr>
<td>16:45-17:15</td>
<td>Safety</td>
<td>Sharov P.</td>
</tr>
<tr>
<td></td>
<td>Identifying hazards and risks</td>
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<td></td>
<td>Proper use of personal protective equipment (PPE)</td>
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<td>Proper handling and disposal of PPE</td>
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<td>17:15-17:30</td>
<td>Questions &amp; Comments</td>
<td>Sharov P.</td>
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<td>Confirm details of day 2 site visit</td>
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**August 24, 2020**

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<thead>
<tr>
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<tbody>
<tr>
<td>09:30-14:30</td>
<td>Site Visit &amp; Demonstration Assessment</td>
<td>Sharov P.</td>
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<tr>
<td>14:30-16:00</td>
<td>Database Exercise</td>
<td>Sharov P.</td>
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<td></td>
<td>Practicing entering data from demonstration assessment into REA database</td>
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**Время** | **Тема**                                      | **Справочный материал** |
<table>
<thead>
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<tbody>
<tr>
<td>10:00-10:15</td>
<td>Введение</td>
<td>Повестка дня</td>
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<tr>
<td></td>
<td>Представление участников</td>
<td>Климова М.Ю.</td>
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<tr>
<td></td>
<td>Цели и структура семинара: Ознакомление с проектом, с ролью государственных структур, методологией быстрой экологической оценки.</td>
<td>Шаров Петр</td>
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<td>10:15-10:45</td>
<td>Справочная информация: знакомство с целями и структурой проекта, ролью участников</td>
<td>Презентации</td>
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<tr>
<td></td>
<td>Область действия и деятельность проекта:</td>
<td>Шаров Петр</td>
</tr>
<tr>
<td></td>
<td>географический охват; виды пестицидов; другие компоненты проекта</td>
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<tr>
<td></td>
<td>Последующая /обратная связь: Что происходит после быстрой экологической оценки?</td>
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<td></td>
<td>Использование данных: Выбор приоритетных участков для планирования деятельности по их восстановлению</td>
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<td>10:45-11:00</td>
<td>Перерыв на чай</td>
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<td>Time</td>
<td>Session</td>
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<td>11:00-11:30</td>
<td>Previous/Current Inventories - Cleanup Projects</td>
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<td>Review of current initiatives associated with obsolete pesticides:</td>
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<tr>
<td></td>
<td>Local, national, and international programs aimed at detecting,</td>
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</tr>
<tr>
<td></td>
<td>evaluating, repackaging obsolete pesticides, and cleaning sites</td>
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<td>Presentations of seminar participants</td>
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</tr>
<tr>
<td>11:30-12:00</td>
<td>Chemical Substances and Environment Protection</td>
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<tr>
<td></td>
<td>Overview of relevant issues of environmental protection:</td>
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<tr>
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<td>Hazards and risks</td>
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<td>Types of pesticides</td>
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<td>Pathways进入 organisms</td>
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<td>Dose response</td>
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<td>Other environmental issues related to pesticides</td>
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<td></td>
<td>Presentations</td>
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<tr>
<td>12:00-13:00</td>
<td>Rapid Environmental Assessment (REA) Method</td>
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<td></td>
<td>Conducting assessments:</td>
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<td>Before assessment (research and preparation)</td>
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<td>Necessary equipment</td>
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<td></td>
<td>During assessment (data collection)</td>
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<td></td>
<td>After assessment (input information into the database)</td>
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<td></td>
<td>Sharov P.</td>
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</tr>
<tr>
<td>13:00-14:30</td>
<td>Lunch Break</td>
<td></td>
</tr>
<tr>
<td>14:30-16:00</td>
<td>Sampling</td>
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<tr>
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<td>Selection of sampling methods depending on characteristics of the site:</td>
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<td>Where to take samples</td>
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<td></td>
<td>Equipment for sampling</td>
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<td>How to take samples</td>
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<td>How many samples to take</td>
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<td></td>
<td>How to store samples</td>
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<tr>
<td></td>
<td>Where to send samples for analysis</td>
<td></td>
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<tr>
<td></td>
<td>Presentations and the investigator's guide</td>
<td></td>
</tr>
<tr>
<td>16:00-16:30</td>
<td>Tea break</td>
<td></td>
</tr>
<tr>
<td>16:45-17:15</td>
<td>Safety</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Determination of hazards and risks</td>
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</tr>
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<td></td>
<td>Proper use of personal protective equipment (PPE)</td>
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<td></td>
<td>Proper disposal and recycling of PPE</td>
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<tr>
<td></td>
<td>Presentations and the investigator's guide</td>
<td></td>
</tr>
<tr>
<td>17:15-17:30</td>
<td>Questions and comments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Explanation of details of the site visit (practical session) on day 2</td>
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**24 August 2020**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>09:30-14:30</td>
<td>Field trip and demonstration evaluation</td>
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<tr>
<td></td>
<td>Sharov P.</td>
</tr>
<tr>
<td></td>
<td>Lunch break</td>
</tr>
<tr>
<td>16:00-17:30</td>
<td>Training in filling the database</td>
</tr>
<tr>
<td></td>
<td>Practice of entering information obtained from the demonstration</td>
</tr>
<tr>
<td></td>
<td>Evaluation of the site, entered into the database REA</td>
</tr>
<tr>
<td></td>
<td>Sharov P.</td>
</tr>
</tbody>
</table>
## ANNEX 4: LIST OF WORKSHOP PARTICIPANTS

Technical Review Workshop “Rapid Environmental Assessment Demonstration Project”

<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Title/Position</th>
<th>Institution/Address</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alexander Alexandrovich Vasilenko</td>
<td>Assistant professor</td>
<td>Federal State Budgetary Educational Institution “Krasnoyarsk State Agrarian University” 660049, Russia, 90, Mira Av., Krasnoyarsk</td>
<td>Tel: +7 (950) 407-44-01 <a href="mailto:WasilenkoAA@yandex.ru">WasilenkoAA@yandex.ru</a></td>
</tr>
<tr>
<td>2</td>
<td>Albina Vladimirovnna Vasilenko</td>
<td>Scientific Secretary</td>
<td>“Krasnoyarsk Science Center of the Siberian Branch of the Russian Academy of Sciences” 660041, Russia, 66, Svobodny Av., Krasnoyarsk</td>
<td>Tel: +7 (950) 407-44-01 <a href="mailto:WasilenkoAA@yandex.ru">WasilenkoAA@yandex.ru</a></td>
</tr>
<tr>
<td>3</td>
<td>Marina Yurievna Klimova</td>
<td>Regional Coordinator, Blacksmith Institute</td>
<td>Russia, Moscow</td>
<td>Tel.: +7 (916) 210-56-02, +7 (499) 610-75-87 <a href="mailto:klimova39@mail.ru">klimova39@mail.ru</a></td>
</tr>
<tr>
<td>4</td>
<td>Elena Nikolaevas Kosareva</td>
<td>Acting Director</td>
<td>Federal State Budgetary Institution “Station of the Agrochemical Service” Arkhangelskaya 163062, Russia, Arkhangelsk, Nikitova St., 9</td>
<td>Tel.: +7 (8182) 68-66-80 <a href="mailto:agrohim_29@mail.ru">agrohim_29@mail.ru</a></td>
</tr>
<tr>
<td>5</td>
<td>Natalia Stanislavovna Kozulina</td>
<td>Deputy Director for Research</td>
<td>“Krasnoyarsk Science Center of the Siberian Branch of the Russian Academy of Sciences” Russia, Krasnoyarsk</td>
<td>Tel.: +7 (913)190-55-05; 244-95-14</td>
</tr>
<tr>
<td>6</td>
<td>Vasily Dmitrievich Kuligin</td>
<td>Director</td>
<td>LLC “Siberian Scientific Research Institute of Hydraulic Engineering and Melioration” 660018, Krasnoyarsk,Krasnomoskovskaya st., 32-143</td>
<td>Tel.: +7(913) 837-43-31 <a href="mailto:kmva@ptl-kras.ru">kmva@ptl-kras.ru</a> <a href="mailto:kmvera@yandex.ru">kmvera@yandex.ru</a></td>
</tr>
<tr>
<td>7</td>
<td>Mikhail Arkadievich Mikhailets</td>
<td>Graduate student</td>
<td>“Krasnoyarsk Science Center of the Siberian Branch of the Russian Academy of Sciences” 660049, Russia, 90, Mira Av., Krasnoyarsk</td>
<td>Department of Soil Science and Agrochemistry Tel.: +7(933) 333-09-16 <a href="mailto:mikhailets_ma@mail.ru">mikhailets_ma@mail.ru</a></td>
</tr>
<tr>
<td>8</td>
<td>Olga Sergeevna Ofan</td>
<td>Head of the laboratory</td>
<td>LLC “Center for Environmental Research and Audit” Krasnoyarsk</td>
<td>Russia Tel.:+8 (953) 581-68-79 cot.; 8 (3112) 18-05-50 <a href="mailto:ceria@list.ru">ceria@list.ru</a></td>
</tr>
<tr>
<td></td>
<td>Name</td>
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<td>Address</td>
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</tbody>
</table>
| 9 | Irina Yurievna Sochneva     | Director                                                                     | LLC “Center for Environmental Research and Audit”  
Russia, Krasnoyarsk, Svobodnii Ave., 72A, office 115  
Tel.: +8 (902) 924-24-11                                                                 |                                                                                                         |
| 10| Petr Olegovich Sharov       | Regional Director                                                            | Eastern Europe and Central Asia Program  
Blacksmith Institute for Pure Earth  
475 Riverside Drive Suite 860, New York, NY 10115  
Phone: +1(212) 870-3484  
skype: petr.sharov www.pureearth.org  
petr@pureearth.org                                                                 | Tel.: +8(902) 31-93-06, 31-95-02, 8(912) 963-93-09                                                                                                     |
| 11| Nina Semyonovna Shes-topalova| Branch manager                                                               | Branch of the federal state budgetary institution “Russian Agricultural Center in the Komi Republic”  
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Komi Republic, Russia  
Tel.: +7(8212) 31-93-06, 31-95-02, 8(912) 963-93-09  
rsc11@mail.ru                                                                 |                                                                                                         |
| 12| Konstantin Sergeevich Sochnev| Procurement Specialist                                                        | LLC “Center for Environmental Research and Audit”  
Russia, Krasnoyarsk, Svobodnii Ave., 72A, office 115  
Tel.: 8(913) 339-84-61                                                                 |                                                                                                         |
| 13| Malinnikov* Aleksei Valentinovich | Head of the Branch “Russian Agricultural Center of Krasnoyarskiy kray”    | 660049, г. Красноярск, ул. Сурикова д. 54в Россия  
Tel.: +7 (391) 227-74-96  
krstazr@mail.ru                                                                 | Tel.: +7 (391) 227-74-96                                                                                      |
| 14| Nefedov* Andrei Alekseevich | Senior Researcher                                                             | Novosibirsk Institute of Organic Chemistry N.N. Vorozhtsov of the Siberian Branch of Russian Academy of Sciences  
630090, г. Новосибирск, проспект Академик Лаврентьева, д. 9  
Россия  
Tel.: +7 (383)330-78-64  
nefyodov@nioch.nsc.ru                                                                 |                                                                                                         |
| 15| Pokhodin* Aleksandr Nikolaevich | First Vice Minister of Agriculture and Trade of Krasnoyarskiy kray | 660009, Красноярск, ул. Ленина, 125  
Россия  
Tel.: +7 (391) 249-31-33  
krasagro@krasagro.ru                                                                 |                                                                                                         |
| 16| Romanov** Vasily Nikolaevich | Head of Agricultural Technologies of the Krasnoyarsk Agriculture Research Institute SB RAS | 660041, г. Красноярск, пр. Свободный, 66  
Россия  
Tel.: +7 (913) 0478951  
romanov1948@yandex.ru                                                                 |                                                                                                         |
| 17| Temnikova* Alena Igorevna   | Program Associate                                                            | Eastern Europe and Central Asia Program  
Blacksmith Institute for Pure Earth  
alena@pureearth.org                                                                 | Tel.: +7 (912) 963-93-09                                                                                      |
ANNEX 5: SITE ASSESSMENT REPORTS

In September-November 2020 the project teams in Krasnoyarsk, Arkhangelsk and Komi regions did 9 rapid environmental assessments of sites potentially contaminated with pesticides.

The rapid environmental assessments followed REA and TSIP protocols. The investigators completed physical descriptions for each site, identified the sources of contamination, estimated the migration of the pollutants and exposure pathways, assessed population at risk. The investigators took top soil samples at each site, recorded sampling coordinates, took photos and prepared maps. The descriptions of sites and documents were uploaded to the online database.

The investigators filled the information in Russian. Pure Earth staff reviewed the data to ensure that all required information is present and up to standards. Site descriptions were translated into English.

The map below shows the locations of sites assessed in 2020.
Site Assessment Report 1. RU-8441

Abandoned warehouse, Pezmeg Village, Kortkeros District, Komi Republic

Pezmeg Village is located in Kortkeros District of Komi Republic on the high right bank of the Vychegda River near the Pezmegty Lake.

The source of contamination is a former pesticide warehouse. The warehouse is located in Severnaya Niva LLC livestock farm. The agrochemicals warehouse was built in late 1960s. Pezmeg State Farm was the owner of the warehouse. In 1991-2007 there were 4 removals of obsolete pesticides from the site. The amount of the removed pesticides was 0.2 tons. The warehouse was decommissioned in 2007. The area of the former warehouse is 50 square meters.

The administrative building of Severnaya Niva LLC livestock farm is 300 meters south-west from the site. There are agricultural fields 20 meters to the south and east. Vegetables and perennial grasses for haymaking grow on the site. The nearest settlement is 2 km north.

The key suspected pollutants are organochlorine pesticides. Surface runoff could carry pesticides off-site. The dust contaminated with pesticides could be carried by wind. The site is easily accessible for people and animals. People could be exposed though inhalation of vapors, inhalation and ingestion of dust, and skin contact.

The conducted assessment did not confirm contamination on the site with pesticides.

Пезмег (Пезмог) - село в Корткеросском районе, расположное на высоком правом берегу р. Вычегды у большого озера Пезмег-ты. Исследования проводились на территории ООО" Северная Нива" (животноводческое хозяйство).

Склад химикатов был построен в конце 60-х годов и принадлежал совхозу "Пезмег". С 1991 - 2007гг. проведены 4 утилизации устаревших пестицидов в количестве 0,2 тонны (выведен из эксплуатации в 2007г.).

1. Местоположение и географическое описание территории - территория с бывшим складом находится близ села Пезмег Корткеросского района Республики Коми. В 300 метрах к юго-западу находится административное здание животноводческого хозяйства ООО «Северная Нива». В 20 метрах на юг и восток от земельного участка, на котором располагался бывший склад с пестицидами, находятся поля сельскохозяйственного назначения, где выращиваются овощные культуры и многолетние травы на сенокос.

Расстояние до центра населенного пункта больше 2км на север.

2. Источник загрязнения - склад для хранения пестицидов, располагается на земельном участке площадью 50 м. кв. Склад принадлежал совхозу "Пезмег".

Основные токсичные вещества - хлорорганические пестициды.
3. Способ миграции загрязняющих веществ - поверхностный смыв является средством переноса пестицидов по загрязненному участку, создавая риск загрязнения почвы и дальнейшего распространения с водой. Риск прямого воздействия на людей из-за содержания пестицидов в верхних слоях почвы или из-за распространения с участка посредством людей или ветра.

4. Пути экспозиции людей - попадание загрязнителя в организм человека при вдыхании пыли, употреблении загрязненной воды, пищи, выращенной на участке. Участок легко доступен для людей и домашних/диких животных.

5. Население, подвергающееся воздействию загрязнителя. Люди могут опосредованно контактировать с загрязнением, если они употребляют в пищу растения, а также животноводческую продукцию выращенных на загрязненной токсичными веществами почве

6. По результатам исследования в 2020 году подтвердилось отсутствие риска от воздействия загрязнителя.

<table>
<thead>
<tr>
<th>Longitude</th>
<th>Latitude</th>
<th>Date</th>
<th>Town/Area Name</th>
<th>Description of the sampling spot</th>
<th>Sampler Full Name</th>
<th>DDT, ppm</th>
<th>Lindane, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>61.832191666666666</td>
<td>51.749948333333336</td>
<td>17.09.2020</td>
<td>Severmaya Niva LLC, Pezmeg Village</td>
<td>irrigation channel</td>
<td>Sergey Vladimirovich Peshkin</td>
<td>0,01</td>
<td>0,01</td>
</tr>
<tr>
<td>61.832169999999998</td>
<td>51.749899999999997</td>
<td>17.09.2020</td>
<td>Severmaya Niva LLC, Pezmeg Village</td>
<td>perennial grasses</td>
<td>Sergey Vladimirovich Peshkin</td>
<td>0,01</td>
<td>0,01</td>
</tr>
<tr>
<td>61.832484999999998</td>
<td>51.747948333333333</td>
<td>17.09.2020</td>
<td>Severmaya Niva LLC, Pezmeg Village</td>
<td>perennial grasses</td>
<td>Sergey Vladimirovich Peshkin</td>
<td>0,01</td>
<td>0,01</td>
</tr>
<tr>
<td>61.831575000000008</td>
<td>51.746949999999998</td>
<td>17.09.2020</td>
<td>Severmaya Niva LLC, Pezmeg Village</td>
<td>perennial grasses</td>
<td>Sergey Vladimirovich Peshkin</td>
<td>0,01</td>
<td>0,01</td>
</tr>
<tr>
<td>61.831391666666669</td>
<td>51.745680000000004</td>
<td>17.09.2020</td>
<td>Severmaya Niva LLC, Pezmeg Village</td>
<td>potato field</td>
<td>Sergey Vladimirovich Peshkin</td>
<td>0,01</td>
<td>0,01</td>
</tr>
<tr>
<td>61.830660000000002</td>
<td>51.744900000000008</td>
<td>17.09.2020</td>
<td>Severmaya Niva LLC, Pezmeg Village</td>
<td>next to the road</td>
<td>Sergey Vladimirovich Peshkin</td>
<td>0,01</td>
<td>0,01</td>
</tr>
<tr>
<td>61.830028333333331</td>
<td>51.74509333333337</td>
<td>17.09.2020</td>
<td>Severmaya Niva LLC, Pezmeg Village</td>
<td>next to the road</td>
<td>Sergey Vladimirovich Peshkin</td>
<td>0,01</td>
<td>0,01</td>
</tr>
<tr>
<td>61.830226666666675</td>
<td>51.741918333333324</td>
<td>17.09.2020</td>
<td>Severmaya Niva LLC, Pezmeg Village</td>
<td>30 meters from the warehouse building</td>
<td>Sergey Vladimirovich Peshkin</td>
<td>0,01</td>
<td>0,01</td>
</tr>
<tr>
<td>61.830384999999993</td>
<td>51.741716666666662</td>
<td>17.09.2020</td>
<td>Severmaya Niva LLC, Pezmeg Village</td>
<td>40 meters from the warehouse building</td>
<td>Sergey Vladimirovich Peshkin</td>
<td>0,0153</td>
<td>0,01</td>
</tr>
<tr>
<td>61.830448333333337</td>
<td>51.741405</td>
<td>17.09.2020</td>
<td>Severmaya Niva LLC, Pezmeg Village</td>
<td>Warehouse</td>
<td>Sergey Vladimirovich Peshkin</td>
<td>0,01</td>
<td>0,01</td>
</tr>
</tbody>
</table>
Figure 1. Map of the site RU-8441
Figure 2. General view of the warehouse

Figure 3. Sampling near the road of the warehouse
Figure 4. The building of the former warehouse
Site RU-8441

Investigator Details
Olga Lyseikova
Department of the Federal Service for Veterinary and Phyto sanitary Supervision in the Komi Republic
ncholom@yandex.ru

This site was last updated
Thu Feb 04 2021, 11:37:00 GMT
Were you like to continue editing?

ISATatus: Approved

Part 1 Screening Risk Assessment

Site Name
Abandoned warehouse, Petzve Village, Kortkero District

Region Country State
Eastern Europe, Northern Eurasia & Central Asia Russia

Toxic Sites Identification Program

Issue: Isolated site Regional problem

Key Pollutant
Pesticides

Sub-Pollutant:

Total population at risk:
300

Blacksmith Index
0

Description

PART 1 Screening Risk Assessment

PART 2 Physical/Description

PART 3 Release Risk

PART 4 Site Stakeholders

PART 5 Linked reports and images
Toxic Sites Identification Program

Data Source Type: Investigator sampling (Lab or XRF)

Data Source Description / Citation:
CERTIFIED LABORATORY OF FEDERAL STATE BUDGETARY INSTITUTION "STATE CENTER OF AGROCHEMICAL SERVICE" VOLGOGRADSKY, NRU RUG.0001.217484. The protocol №01.2425

Population Estimate:
- 1,500
  - Population estimate confirmed by local authority

Sample Group ID: 1. Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.01
  - Sample Group ID: 1. Key Pollutant: DDT, Test Result: 0.01
  - Sample Group ID: 1. Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.01
  - Sample Group ID: 1. Key Pollutant: DDT, Test Result: 0.01
  - Sample Group ID: 1. Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.01
  - Sample Group ID: 1. Key Pollutant: DDT, Test Result: 0.01
  - Sample Group ID: 1. Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.01
  - Sample Group ID: 1. Key Pollutant: DDT, Test Result: 0.01

Estimated additional population possibly at risk:

Physical Description

Location & Site Description:
### Toxic Sites Identification Program

was built in late 1960s. Pemco Stites Farm was the owner of the warehouse. In 1991-2007 there were 4 removals of a amount of the remnant pesticides was 0.2 tons. The warehouse was decommissioned in 2007. 1.5ha of the former, The administrative building of Savannah Napa LLC. Newick farm is 3.6km southwest from the site. There are ag and eat vegetables and perennial grasses for haymaking grow on the site. The nearest settlement is 2 km north. The key suspect pollutants are organochlorine pesticides. Surface runoff could carry pesticides off-site. The dust can carry by wind. The site is easily accessible for people and animals. People could be exposed though inhalation of vapors or contact.

<table>
<thead>
<tr>
<th>Size of Contaminated Area</th>
<th>Estimated depth of contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000 - 10,000 m² (4 acres)</td>
<td>5 ft</td>
</tr>
</tbody>
</table>

Was a test pit dug to determine depth of contamination?
- Yes
- No

Is there a strong smell associated with the site attributed to contamination?
- Yes
- No

**SOIL GROUP**

PODOZOLS HISTOSOLS

<table>
<thead>
<tr>
<th>Clay Content</th>
<th>Silt Content</th>
<th>Sand</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>43</td>
<td>42</td>
</tr>
</tbody>
</table>

Land Use: Population Density

**PART 1**

Screening Risk Assessment

**PART 2**

Physical Description

**PART 3**

Release/Rem

**PART 4**

Site Stakeholders

**PART 5**

Linked reports and images

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total across site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>List the number of people in the following categories:</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Site</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Live</td>
</tr>
<tr>
<td>Work</td>
</tr>
<tr>
<td>Visit</td>
</tr>
</tbody>
</table>

Site accessibility to animals that are later consumed by humans:

- 100m
- Outside 100m of the contamination

https://www.contaminatedsites.org/site/6441/
Toxic Sites Identification Program

What is the groundwater sector?
- Not Known

If water at the site is contaminated, is there another source of clean water available?
- No

Describe the access to the contaminated area:
- Easy access, few barrier to entry

Source Industry:
- Agriculture

Active/Legacy:
- Legacy

Documented Health Effects:
- No

Describe credible health impact of pollutant. Append any existing studies (scan and pdf) to Part 6. Indicate associate evidence.

Additional Notes:

Release Risk

Is there permanent surface water on the site?
- No

What is it used for?
- Select one

Is there evidence of high water table or groundwater?
- No

Depth of the water table
- Select a depth

Is the site in a flood plain?
- No
Site Stakeholders

Number of stakeholders interviewed: 1
Number of males: 1

Stakeholder Type:
- Other Agency 1

Name: [Redacted]

Address:
- 16641, Plochodvorskaya, Gusevskoye, 2, city Nester. Kostkevskiy district.
- 16641, Komi Republic, Sokovskaya Street, 2, Piremo Village, Kostkevskiy District.

Phone Number: 7 921/3a-9-42-45
Email: [Redacted]

Meeting Dates, Notes, & Key Findings:
- 17.09.2020
  - Galina Pushkina: Tassocommit told about the history of the warehouse
  - Passes a picture catalog.
Toxic Sites Identification Program

1. Проба No.1.jpg
2. Проба No.2.jpg
3. Проба No.3.jpg
4. Проба No.4.jpg
5. Проба No.5.jpg
6. Проба No.6.jpg
7. Проба No.7.jpg
8. Проба No.8.jpg
9. Проба No.9.jpg
10. Проба No.10.jpg

Description

PART 1: Screening Risk Assessment
PART 2: Physical Description
PART 3: Release Risk
PART 4: Site Stakeholders
PART 5: Linked reports and images

Part 6: Expected Intervention Description

Describe possible measures that could be taken to mitigate risk. Please include an estimated timeframe and key activities:

Estimated volume of contaminant: Enter estimated value m³

https://www.contaminatedsites.org/a4I/M4I/
Toxic Sites Identification Program

Describe long-term intervention approach:

Note any physical, political or social barriers to the intervention

Who is Local Champion? Provide contact details:

PART 1 Screening Risk Assessment

PART 2 Physical Description

PART 3 Release Risk

PART 4 Site Stakeholders

PART 5 Linked reports and images
The former warehouse of obsolete pesticides is located in Mosha Village, Nyandomsky District of Arkhangelsk Region within the Mosha River Watershed.

The source of contamination is a typical brick warehouse building. The previous inventory of obsolete pesticides in Moshinsky state farm was conducted in 2003. During that inventory 1805 kg of obsolete organochlorine pesticides were found in the warehouse.

Pesticides were stored in broken containers inside the warehouse until June, 2004. In 2004 the slate roof of the building was removed, the brick wall was dismantled. Currently the warehouse building is in very poor condition and is partially destroyed.

The key contaminants are organochlorine pesticides.

The distance to the nearest farm is 1030 meters to the north. Livestock graze close to the warehouse. Farm animals have free access to the contaminated area. People may eat contaminated animal products or crops.

The largest lake Moshinskoe is located 730 meters to the northeast from the site. People use it as a recreation area. Runoff from the site may enter the lake.

The nearest residential buildings are within 1285 meters to the north from the site. The population uses water from a centralized water supply system. Children can enter the site. The residential area is downwind of the warehouse.

The dust contaminated with pesticides could be carried by wind. People could be exposed to inhalation of vapors, inhalation and ingestion of dust, and skin contact.

The conducted assessment did not confirm contamination on the site with pesticides.
3. Способ миграции загрязняющих веществ - поверхностный смыв является средством переноса пестицидов по загрязненному участку, создавая риск загрязнения почвы и дальнейшего распространения с водой. Риск прямого воздействия на людей из-за содержания пестицидов в верхних слоях почвы или из-за распространения с участка посредством людей или ветра.

4. Пути экспозиции людей - попадание загрязнителя в организм человека при вдыхании пыли, употреблении загрязненной воды, пищи, выращенной на участке. Участок легко доступен для людей и домашних/диких животных.

5. Население, подвергающееся воздействию загрязнителя - сток с участка мог попадать с грунтовыми водами в озеро, на расстоянии до фермы пасли скот, домашних животных, в 1285 метрах - жилье дома, гуляют дети. Получают питьевую воду централизованно. У местных жителей дома в основном деревянные. Детей в основном по двое в семьях. Жилье зоны частично находятся с подветренной стороны от источника воздушного загрязнения. В настоящее время люди не проходят возле источника загрязнения по дороге на работу/школу. По территории поселения проходят автодороги общего пользования регионального значения.

6. По результатам исследования в 2020 году подтверждено отсутствие риска от воздействия загрязнителя.

<table>
<thead>
<tr>
<th>Longitude</th>
<th>Latitude</th>
<th>Date</th>
<th>Town/Area Name</th>
<th>Description of the sampling spot</th>
<th>Sampler Full Name</th>
<th>Organochlorine pesticides, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>40.84927</td>
<td>61.77622</td>
<td>03.10.2020</td>
<td>Mosha Village</td>
<td>Land area overgrown with weeds</td>
<td>A. Sverlov</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>40.84921</td>
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<tr>
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<tr>
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<tr>
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</tr>
<tr>
<td>40.84933</td>
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<td>Mosha Village</td>
<td>Land area overgrown with weeds</td>
<td>A. Sverlov</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>40.84942</td>
<td>61.77623</td>
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<td>&lt;0.01</td>
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<tr>
<td>40.84949</td>
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<tr>
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<td>03.10.2020</td>
<td>Mosha Village</td>
<td>Land area overgrown with weeds</td>
<td>A. Sverlov</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>
Figure 5. Map of the site RU-8476
Figure 6. The remains of the warehouse building

Figure 7. The road near the warehouse
Figure 8. Agricultural field near the warehouse
# Toxic Sites Identification Program

## Site RU-8476

### Investigator Details

- **Aleksey Sverlov**
- Private educational institution "Institute of Management"
- +7 911 555 66 40
- michael79me@yandex.ru

### This site was last updated

Thu Feb 04 2021 11:36:12 GMT

Would you like to continue editing?

- [ ] Edit
- [ ] New

### ISA Status: Approved

## Part 1 Screening Risk Assessment

### Site Name

- Former pesticides warehouse, Moska Village, Nyandomsky District

### Region

- Eastern Europe, Northern Eurasia & Central Asia

### Country

- Russia

### Stakeholders

### Linked reports and images

---

## Toxic Sites Identification Program

### Issue:

- [ ] Isolated Site
- [ ] Regional Problem

### Key Pollutant

- **Pesticides**

### Sub-Pollutant:

- Organochlorines

### Total Population at Risk:

- 60

### Blacksmith Index

- 0

---

### Description

### View Users

- [ ] View Users
- [ ] View my sites
- [ ] Add new sites
- [ ] Layout:
Toxic Sites Identification Program

**Latitude:** 51.716022  
**Longitude:** 40.041924

**Abstract**

The former warehouse of obsolete pesticides is located in Moshka Village, Nyandsky District of Arkhangelsk Region. Source of contamination is a typical brick warehouse building. The key contaminants are organochlorine pesticides. The dust contaminated with pesticides could be carried by wind. People could be exposed to inhalation of vapors, inhale contact.

В калюбке "Мошковская" в 2003 году на момент инвентаризации числилось 1915 к упаковок с пестицидами. В 2010 краю, разобрана ячейковая схема. 500 ШТ 2004 г. пестициды оказались в дымчатом слое, вероятна циркуляция: источник загрязнения — склад для хранения пестицидов типовой, кардинальный, из двух отделений, требуется рекон. Основные загрязнения вида — полихлорфенилазоты.

**Sample Group ID:** 1  
**Key Pollutant:** Organochlorine not otherwise specified, Test Result: 0.01

**Bit**

- **Sample Sector:** 1
- **Rec Level:** Level
- **Subpollutant:** Organochlorine not otherwise specified
- **Properties:** Targeted
- **Soil - Residential**
- **Latitude:** 51.716022
- **Longitude:** 40.041924

**Part 1:** Screening Risk Assessment

**Part 2:** Physical Description

**Part 3:** Release Risk

**Part 4:** Site Stakeholders

**Part 5:** Linked reports and images
## Toxic Sites Identification Program

**Data Source Type:**
- Investigator sampling (Lab or XRF)
- **Data Certainty:** High

**Data Description / Citation:**
Certified Laboratory of Federal State Budgetary Institution "State Center of Agrochemical Service" Volgogradskii,
Lab protocol № 6.2742 or 11.11.2020:

Privedennyj resurs № 6.2742 or 11.11.2020:

**Population Estimate**
- 9
- Population estimate confirmed by local authority

- Sample Group ID: 2, Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01
- Sample Group ID: 3, Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01
- Sample Group ID: 4, Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01
- Sample Group ID: 5, Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01
- Sample Group ID: 6, Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01
- Sample Group ID: 7, Key Pollutant: Polychlorides, Test Result: 0.01

**Estimated additional population possibly at risk:**
- 0

### Physical Description

**Location & Site Description:**
The former warehouse of obsolete pesticides is located in Masha Village, Nyandarua District of Arusha Region.
The source of contamination is a typical brick warehouse building. The previous inventory of obsolete pesticides in MoA 2003. During that inventory, 1000 kg of obsolete organochlorine pesticides were stored in the warehouse. Pesticides were stored in broken containers inside the warehouse until June 2004. In 2004 the state roof of the building collapsed.

Currently the warehouse building is in very poor condition and is partially destroyed. The key contaminants are organochlorine pesticides.
The distance to the nearest farm is about 1.5 km to the north of the farm. Livestock grazing close to the warehouse. Farm animals like people may eat contaminated animal products or crops.
The largest block of land is located 730 meters to the northeast from the site. People use it as a recreational area.

**Size of Contaminated Area:**
- < 100 m²

**Estimated depth of contamination:**
- 22
Toxic Sites Identification Program

Position of the contaminant relative to the slope:

- Above ground level and slope is flat
- No

Site Stakeholders

Number of stakeholders interviewed: 4
Number of males: 0

Stakeholder Type:
Other Agency:

Name:
former employees of the warehouse / былими работники хозяйства

Address:
164224, Astrakhan region, Chelyabinsk district, Makarskaya
164224, Astrakhan Oblast, Chelyabinsk region, Makarskaya

Meeting Dates, Notes, & Key Findings:
The meeting took place on 3rd October 2020. The former employees of the warehouse told about the repackage of
93-94.2020 г. Рассказ о месте и работе склада, переупаковке контейнеров, объявлен:

Linked reports and Images

- Протокол испытаний № 0.742 от 11.11.2020 г., pdf, lab protocol, sample # 1H
- Протокол испытаний № 0.743 от 11.11.2020 г., lab protocol, sample # 2H
- Протокол испытаний № 0.744 от 11.11.2020 г., lab protocol, sample # 3H
- Протокол испытаний № 0.745 от 11.11.2020 г., lab protocol, sample # 4H
- Протокол испытаний № 0.746 от 11.11.2020 г., lab protocol, sample # 5H
- Протокол испытаний № 0.747 от 11.11.2020 г., lab protocol, sample # 6H
- Протокол испытаний № 0.748 от 11.11.2020 г., lab protocol, sample # 7H
Toxic Sites Identification Program

- Протокол испытаний № 02.710 от 11.11.2020 г. pdf (lab protocol sample # 9)
- Протокол испытаний № 02.712 от 11.11.2020 г. pdf (lab protocol sample # 9)
- Протокол испытаний № 02.713 от 11.11.2020 г. pdf (lab protocol sample # 9)
- Карта с местом выброса пестицидов.jpg (map: rus)
- samples_log_2020.xls sample_log (Russian)
- Протокол испытаний № 02.715 от 11.11.2020 г. pdf (lab protocol sample # 9)
- Выброс пестицидов. Зафиксирован участок древесно-кустарниковой растительности.jpg (area covered with trees)
- Выброс пестицидов. Нет входящих.jpg (area entry is closed)
- Выброс пестицидов. Отмеченное координаты.jpg (coordinates)
- Выброс пестицидов.jpg (warehouse and road)
- Дорога к выбросу пестицидов.jpg (the road to the warehouse)
- Загрязненная зона пестицидов.jpg (dirt patch)
- Назначены участки выброса пестицидов.jpg (areas covered with grass)
- Отсюда по направлению выброса пестицидов.jpg (agricultural area)
- Карта общего района.jpg (map of the site, Russian)

PART 1 Screening Risk Assessment

PART 2 Physical Description

PART 3 Release Risk

PART 4 Site Stakeholders

PART 5 Linked reports and images

04.02.2021

Toxic Sites Identification Program

- Moshav IL protocol for Moshav Village (all samples)
- Moshav map.jpg (map: English)

PART 6 Expected Intervention Description

Describe possible measures that could be taken to mitigate risk. Please include an estimated time frame and key activities:

Estimated volume of contaminant: Enter an estimated value in m³

Initial Intervention Type: Select an intervention type

Describe long term intervention approach:

https://www.contaminatedsite.org/act/04/04/ 1376

04.02.2021

Toxic Sites Identification Program

- Moshav IL protocol for Moshav Village (all samples)
- Moshav map.jpg (map: English)

PART 6 Expected Intervention Description

Describe possible measures that could be taken to mitigate risk. Please include an estimated time frame and key activities:

Estimated volume of contaminant: Enter an estimated value in m³

Initial Intervention Type: Select an intervention type

Describe long term intervention approach:

https://www.contaminatedsite.org/act/04/04/ 1416
Site Assessment Report 3. RU-8502

Former warehouse of toxic chemicals, Syktyvkar town, Komi Republic

The former warehouse of obsolete pesticides is located in Syktyvkar city. The population of Syktyvkar city is 244,403 people. The warehouse was built in 1960s. The building of the warehouse was made of bricks.

The area of the warehouse is 50 square meters. The state farm Severnoye was the owner of the warehouse.

In 1993 0.4 tons of obsolete pesticides were removed from the site. The warehouse was not in use since 2007. It is partially destroyed.

There are agricultural fields at a distance of 20-40 meters around the warehouse. People grow vegetables and perennial grasses for hay on these fields. There are residential buildings within 800 meters north of the site.

The key pollutants are organochlorine pesticides.

Surface runoff could carry pesticides off-site. The dust contaminated with pesticides could be carried by wind.

Humans and domestic and wild animals can easily access to the area of the warehouse. People could be exposed though inhalation of vapors, inhalation and ingestion of dust, and skin contact.

The conducted assessment did not confirm contamination on the site with pesticides.

Исследования проводились на территории г. Сыктывкар. Склад химикатов был построен в 60-х годах. Проект типовой, кирпичный. С 1995 года проведены утилизации устаревших пестицидов в количестве 0,4 тоны. С 2007 года склад не функционирует (разобран).

1. Местоположение и географическое описание территории. Территория с бывшим складом находится близ города Сыктывкар Республики Коми. Со всех сторон на расстоянии от 20 до 40 метров окружен полями сельскохозяйственного назначения, где выращиваются овощные культуры и многолетние травы на сенокос. Расстояние до близ стоящих домов 0,8км к северу.

2. Источник загрязнения - склад для хранения пестицидов. Склад располагается на земельном участке площадью 50 м.кв. Склад принадлежал ОПХ "Северное".

Основные токсичные вещества - хлорорганические пестициды.
3. Способ миграции загрязняющих веществ. Поверхностный смыв является средством переноса пестицидов по загрязненному участку, создавая риск загрязнения почвы и дальнейшего распространения с водой. Риск прямого воздействия на людей из-за содержания пестицидов в верхних слоях почвы или из-за распространения с участка посредством людей или ветра.

4. Пути экспозиции людей - попадание загрязнителя в организм человека при вдыхании пыли, употреблении загрязненной воды, пищи, выращенной на участке. Участок легко доступен для людей и домашних/диких животных.

5. Население, подвергающееся воздействию загрязнителя. Люди могут опосредованно контактировать с загрязнением, если они употребляют в пищу растения, а также животноводческую продукцию выращенных на загрязненной токсичными веществами почве.

6. По результатам исследования в 2020 году подтвердилось отсутствие риска от воздействия загрязнителя.

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<th>Latitude</th>
<th>Date</th>
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<th>Description of the sampling spot</th>
<th>Sampler Full Name</th>
<th>DDT, ppm</th>
<th>Lindane, ppm</th>
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<td>0,01</td>
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<td>0,01</td>
</tr>
</tbody>
</table>
RU-8502
Former warehouse of toxic chemicals, Syktyvkar town, Komi Republic

Figure 9. Map of the site RU-8502
Figure 10. Sampling on the agricultural field

Figure 11. Sampling on the agricultural field
Figure 12. An investigator makes takes GPS coordinates
Figure 13. Sampling near the remains of the warehouse building
Site RU-8502

Investigator Details
Olga Lyseikova
Department of the Federal Service for Veterinary and Phytosanitary Supervision in the Komi Republic
mailto:olga.lyseikova@fsvseskomi.ru

This site was last updated
Thu, 26 Feb 2021, 12:18:00 GMT
Would you like to continue editing?
Edit
New

ISA Status: Approved

Part 1 Screening Risk Assessment

Site Name
Former warehouse of toxic chemicals, Syktyvkar town, Komi Republic

Region
Eastern Europe, Northern Eurasia & Central Asia

Country
Russia

State


Toxic Site Identification Program

Issue:
Isolated site
Regional problem

Key Pollutant
Pesticides

Sub Pollutant:
Blacksmith Index

Total population at risk:
1000

PART 1 Screening Risk Assessment

PART 2 Physical Description

PART 3 Release Risk

PART 4 Site Stakeholders

PART 5 Linked reports and images
Toxic Sites Identification Program

Latitude: 51.4734039645027
Longitude: 58.712630460423

Abstract

The former warehouse of obsolete pesticides is located in Syktyvkar city. The population of Syktyvkar city is 244,413 (2010). There are residential buildings within 300 meters north of the site. The key pollutants are organochlorine pesticides.

Humans and domestic and wild animals can easily access to the area of the warehouse. People could be exposed to ingestion of dust, and skin contact.

PART 1 Screening Risk Assessment

PART 2 Physical Description

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Sample Group ID: 4

Measurement above recommended levels: 0-1x, 1-2x, 2-3x, 3-5x, >5x

Sample Group ID: 1. Key Pollutant: DDT, Test Result: 0.01

Sample Sector: 1

Key Pollutant: Pesticides

Properties:
- Targeted
- Soil - Agriculture

Test Result: 0.01
Toxic Sites Identification Program

Data Source Type: Investigator sampling (Lab or XRF)
Test Data Certainty: High

Data Source Description / Citation:
Certified Laboratory of Federal State Budgetary Institution "State Center of Agrochemical Service" Volgogradsky, Nizhnii Novgorod. The protocol № 1.24.03.

Population Estimate:
- 50
- Population estimate confirmed by local authority

- Sample Group ID: 1, Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.01
- Sample Group ID: 1, Key Pollutant: DDT, Test Result: 0.01
- Sample Group ID: 1, Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.01
- Sample Group ID: 1, Key Pollutant: DDT, Test Result: 0.01
- Sample Group ID: 1, Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.01
- Sample Group ID: 1, Key Pollutant: DDT, Test Result: 0.01

Estimated additional population possibly at risk:

Part 2 Physical Description

Location & Site Description:

https://www.contaminateshot.com/code/14201/
Toxic Sites Identification Program

The area of the warehouse is 10 square meters. The state term (Sekem) was the owner of the warehouse. In 1995, 8.4 tons of used organochlorine were removed from the site. The warehouse was not in use since 2007. It is now used for agricultural activities at a distance of 80-50 meters around the warehouse. People grow vegetables, and several residential buildings within 300 meters north of the site.

The key pollutants are organochlorine pesticides. Surface runoff could carry pesticides off-site. The toxic contaminated with pesticides could be carried by wind.

Humans and domestic, and wild animals can easily access to the area of the warehouse. People could be exposed through dust and soil ingestion.

Size of Contaminated Area: 5,000 - 10,000 m² (4.1 hectares)

Estimated depth of contamination: 5 m

Was a test pit dug to determine depth of contamination?

No

Is there a strong smell associated with the site attributed to contamination?

No

Soil Group: LUUSOLS, AUUSOLS, RETISOLS

Soil Texture: Medium

Clay Content: 16%

Silt Content: 47%

Sand: 37%

Land Use: Population/Season

Total across all categories:

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<thead>
<tr>
<th>Activity</th>
<th>On Site</th>
<th>Within 50 meters</th>
<th>Within 100 meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Work</td>
<td>6</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Visit</td>
<td>0</td>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>

Site accessibility to animals that are later consumed by humans: Accessible to unessential food animals

How far are crops produced from the contaminated site?

Within 1000s of the contaminated area
### Toxic Sites Identification Program

<table>
<thead>
<tr>
<th>Description</th>
<th>View Users</th>
<th>View my sites</th>
<th>Add new sites</th>
<th>Layout:</th>
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<tbody>
<tr>
<td>PART 1</td>
<td>PART 2</td>
<td>PART 3</td>
<td>PART 4</td>
<td>PART 5</td>
</tr>
<tr>
<td>Screening Risk Assessment</td>
<td>Physical Description</td>
<td>Release Risk</td>
<td>Site Stakeholders</td>
<td>Linked reports and images</td>
</tr>
</tbody>
</table>

#### Description:
- There is complete grass cover.
- Easy access yet few barrier to entry.

#### Source Industry:
- Agriculture

#### Active/Legacy:
- Legacy
- Informal

#### Documented Health Effects:
- No

#### Additional Notes:
- Describe credible health impact of pollutant. Append any existing studies (soon and pdf) to Part 4. Indicate associated evidence.

---

### Release Risk

<table>
<thead>
<tr>
<th>Description</th>
<th>View Users</th>
<th>View my sites</th>
<th>Add new sites</th>
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<tr>
<td>PART 1</td>
<td>PART 2</td>
<td>PART 3</td>
<td>PART 4</td>
<td>PART 5</td>
</tr>
<tr>
<td>Screening Risk Assessment</td>
<td>Physical Description</td>
<td>Release Risk</td>
<td>Site Stakeholders</td>
<td>Linked reports and images</td>
</tr>
</tbody>
</table>

#### Is there permanent surface water on the site?
- No

#### Is there evidence of high water table or groundwater?
- No

#### Is the site in a flood plain?
- No

#### What isn't used for?
- Select one
Part 1. Site Stakeholders

Number of stakeholders interviewed: 1
Number of males: 1

Stakeholder Type: Business/Corporate Interest

Name:

https://www.contaminatedsite.org/#site/9562/

Part 3. Meeting Dates, Notes, & Key Findings

Meeting took place on September 21, 2020.

Former employee (Chief agronomist) of the LLC Nevoenaya told about the history of the warehouses.

21.09.2020 Бывший сотрудник (Главный агроном) ОПХ "Севеной" Константин Павел Иванович. Рассказ о работе на водонепроницаемых материалах.

https://www.contaminatedsite.org/#site/9562/
Toxic Sites Identification Program

PART 1
Screening Risk Assessment

PART 2
Physical Description

PART 3
Release Risk

PART 4
Site Stakeholders

PART 5
Linked reports and images

Expected Intervention Description

Describe possible measures that could be taken to mitigate risk. Please include an estimated time frame to key activities:

Estimated volume of contaminant: Enter estimation [m³]

https://www.contaminatedsites.org/site/562/
Site Assessment Report 4. RU-8513

Former pesticide warehouse, Vizinga Village of Sysolsky District, Komi Republic

The former pesticide warehouse is located in Vizinga Village of Sysolsky District, Komi Republic 77 km from Syktyvkar City. The village is located along the banks of the Bolshaya Vizinga River. The population of Vizinga Village is 7140 people.

The warehouse was built in late 1970s. Since 1991 to 2005 about 2 tons of obsolete pesticides were removed from the warehouse.

Industrial buildings are located 100 meters north from the site. A vegetable storehouse of the Federal State Budgetary Institution "Gossortkomissia" is within 100 meters west of the site. Private-sector fields with vegetable crops are within 60 meters south. The distance to the residential buildings is more than 500 meters to the west.

The area of the warehouse is 100 square meters. The state farm Sysolsky was the owner of the warehouse.

The key pollutants are organochlorine pesticides.

Surface runoff could carry pesticides off-site. The dust contaminated with pesticides could be carried by wind.

The site is easily accessible to humans and domestic and wild animals. People could be exposed though inhalation of vapors, inhalation and ingestion of dust, and skin contact or eating crops grown close to the site.

The conducted assessment did not confirm contamination on the site with pesticides.
2. Источник загрязнения - склад для хранения пестицидов, располагается на земельном участке площадью 100 м. кв. Склад принадлежал совхозу "Сысольский".

Основные токсичные вещества - хлорорганические пестициды.

3. Способ миграции загрязняющих веществ - поверхностный смыв является средством переноса пестицидов по загрязненному участку, создавая риск загрязнения почвы и дальнейшего распространения с водой. Риск прямого воздействия на людей из-за содержания пестицидов в верхних слоях почвы или из-за распространения с участка посредством людей или ветра.

4. Пути экспозиции людей - попадание загрязнителя в организм человека при вдыхании пыли, употреблении загрязненной воды, пищи, выращенной на участке. Участок легко доступен для людей и домашних/диких животных.

5. Население, подвергающееся воздействию загрязнителя. Люди могут опосредованно контактировать с загрязнением, если они употребляют в пищу растения, выращенные на загрязненной токсичными веществами почве.

6. По результатам исследования в 2020 году подтверждено отсутствие риска от воздействия загрязнителя.

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<th>Longitude</th>
<th>Latitude</th>
<th>Date</th>
<th>Town/Area Name</th>
<th>Description of the sampling spot</th>
<th>Sampler Full Name</th>
<th>DDT, ppm</th>
<th>lindane, ppm</th>
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<td>Sergey Vladimirovich Peshkin</td>
<td>0,01</td>
<td>0,01</td>
</tr>
</tbody>
</table>
RU-8513
Former pesticide warehouse, Vizinga Village of Sysolsky District

Figure 14. Map of the site RU-8513
Figure 15. Investigators working on the site

Figure 16. Sampling on the potato field
Figure 17. Sampling within 30 meters from the warehouse
Site RU-8513

Investigator Details
Olga Lymenkov
Department of the Federal Service for Veterinary and Phyto-sanitary Supervision in the Komi Republic
ncl.106n@yandex.ru

This site was last update Thu Feb 04 2021 12:32:00 GMT
Would you like to continue editing?

View Users
View my data
Add new sites
Layout:

ISA Status: Approved

Part 1 Screening Risk Assessment

Site Name
 Former pesticide warehouse Vjusga Village of Sysolsky District

Region Country State
Eastern Europe, Northern Eurasia & Central Asia Russia

Toxic Sites Identification Program

Issue: Isolated site Regional problem

Key Pollutant SubPollutant:
Pesticides

Total population at risk:
240

Blacksmith Index
0
### Toxic Sites Identification Program

**Latitude:** 51.084135875327  
**Longitude:** 50.11718391772

### Abstract

The former pesticide warehouse is located in Yuzhga Village of Syeyrsky District, Komi Republic, 77 km from Syeyrsky. Public-sector farms with vegetable crops are within 60 meters south. The distance to the residential buildings is more than 500 meters.

The site is easily accessible to humans and domestic and wild animals. People could be exposed to toxicants through inhalation or skin contact or eating crops grown close to the site.

### Description

- **View Users**
- **View my sites**
- **Add new sites**
- **Layout:**

### PART 1: Screening Risk Assessment

### PART 2: Physical Description

### PART 3: Release Risk

### PART 4: Site Stakeholders

### PART 5: Linked reports and images

### Toxic Sites Identification Program

**Sample Group ID:** 1  
**Population:** 12

**Measurement above recommended level:** 0-1x 1-2x 2-3x 3-3x 5-23x >25x

### Sample Group ID: 1. Key Pollutant: DDT, Test Result: 0.01

<table>
<thead>
<tr>
<th>Sample Sector</th>
<th>Bit</th>
<th>Rec Level</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Level</td>
<td></td>
</tr>
</tbody>
</table>

**Key Pollutant:** Pesticides  
**Sub-Pollutant:**

**Properties:**
- **Targeted**
- **Soil - Agriculture**

**Test Result:** 0.01  
**Latitude:** 51.084135875327  
**Longitude:** 50.11718391772
Toxic Sites Identification Program

Data Source Type:
- Investigator sampling (Lab or XRF)

Data Source Description / Citation:
Certified Laboratory of Federal State Budgetary Institution "State Center of Agrochemical Service" Vologdskiy, NRU RU.0001.21ПЧ.04. Protocol №0.2445

Population Estimate:
- 12

- Population estimate confirmed by local authority

- Sample Group ID: 1, Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.01
- Sample Group ID: 2, Key Pollutant: DDT, Test Result: 0.01
- Sample Group ID: 3, Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.01
- Sample Group ID: 4, Key Pollutant: DDT, Test Result: 0.01
- Sample Group ID: 5, Key Pollutant: Pesticides, Test Result: 0.01

Estimated additional population possibly at risk:

Part 2: Physical Description

Location & Site Description:

https://www.contaminates.org/site/5115
Toxic Sites Identification Program

The warehouse was built in site 10-106. Since 1991 to 2005, about 2 tons of obsolete pesticides were removed from the Industrial buildings and are located 100 meters north of the site. A vegetable storehouse of the Federal State Budgetary 100 meters west of the site. Private-cabinet fields with vegetable crops are within 50 meters south. The distance to the river is 100 meters to the west.

The area of the warehouse is 110 square meters. The state term Sysolok was the owner of the warehouse. The key pollutants are organochlorine pesticides. Surface runoff could carry pesticides off-site. The dust contaminated with pesticides could be carried by wind.

Size of Contaminated Area: 5,000 - 50,000 m² (1 hectare) Estimated depth of contamination: 5 cm

Was a test pit dug to determine depth of contamination? No

Is there a strong smell associated with the site attributed to contamination? No


Toxic Sites Identification Program

Land Use: Agriculture

List the number of people in the following categories:

- On Site: 0 (0 within 50 meters, 0 within 100 meters)
- Work: 6 (0 within 50 meters, 6 within 100 meters)
- Visit: 0 (0 within 50 meters, 6 within 100 meters)

Total across all categories: 6

Site accessibility to animals that are later consumed by humans: Accessible to occasional food animals

How far are crops produced from the contaminated site? Within 100% of the contaminated area?
### Toxic Sites Identification Program

**Distance to the closest river or water body downstream of the contaminated site**

- 2 km to 3 km

**Distance to the closest well**

- Near well vicinity

**Position of the contaminant relative to the slope**

- Aboveground level and slope is steep

**In which direction?**

- Select a direction

**Is this a storage facility for chemicals in:**

- No

### Site Stakeholders

<table>
<thead>
<tr>
<th>Stakeholder Type</th>
<th>Number of stakeholders interviewed</th>
<th>Number of males</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Agency 1</td>
<td>1</td>
<td>Number of males</td>
</tr>
</tbody>
</table>

### Toxic Sites Identification Program

**Adresse**

166100, Pechoryskoe korm, Sychsanskoye raskor, s. Brestnya, rj. Mira, d. 2a
166100, Kom Republic, Sysluisk distr. Urash village, Min street, building 2a

**Phone Number**

+7 921 11 9-20-38

**Email**

komikts@yandex.ru

**Meeting Dates, Notes, & Key Findings**

The meeting took place on September 24, 2020. Valentina Galina told about the history of the warehouse, 23.09.2020: *посещение и пожарная охрана.*

### Linked reports and Images

- [2020-11-19, 11-13-44.png](https://www.contaminatedsites.org/sa6513) Map (Russia)
Toxic Sites Identification Program

21 проба Сынський дайон, Везикгия jgp 50 meters from the warehouse building
22 проба Сынський дайон, с. Везикгия jgp 3 meters from the warehouse building
23 проба Сынський дайон, с. Везикгия jgp 30 meters from the warehouse building
24 проба Сынський дайон, с. Везикгия jgp agricultural field
25 проба Сынський дайон, с. Везикгия jgp drainage channel
26 проба Сынський дайон, с. Везикгия jgp potato field

Part 1: Expected Intervention Description

Describe possible measures that could be taken to mitigate risk. Please include an estimated timeline and key activities:

Estimated volume of contaminant: [Enter an estimated volume] m³
Site Assessment Report 5. RU-8530

Former pesticides warehouse, Prigorodny Village, Kargopol District, Arkhangelsk Oblast

The former pesticide warehouse is located near Prigorodny Village, Kargopol District of Arkhangelskaya Oblast.

The industrial zone is within 50 meters west from the warehouse. The nearest industrial building is within 150 meters southwest from the site. One- or two-story wooden residential buildings are within 65 meters east from the site. The distance to the center of the Prigorodny Village is 260 meters to the north.

The source of contamination is a former pesticide warehouse. The state farm Kargopol was the owner of the warehouse. The area of the former warehouse is 100 square meters. Nowadays the warehouse building is in poor condition.

In 2003-2004 JSC "Kargopol" repackaged the obsolete pesticides in five agricultural enterprises of the Kargopol District. The total amount of repackaged pesticides was 2298 kg.

The key pollutants are organochlorine pesticides.

People and animals can enter the site easily.

Surface runoff could carry pesticides off-site. The dust contaminated with pesticides could be carried by wind. People could be exposed to inhalation of vapors, inhalation and ingestion of dust, skin contact, or consumption animal products.

The conducted assessment did not confirm contamination on the site with pesticides.

1. Местоположение и географическое описание территории - территория с бывшим складом находится близ посёлка Пригородный Каргопольского района Архангельской области. В 150 метрах к юго-западу находится здание промышленного назначения. К западу от земельного участка в 50 м располагается промышленная зона. В 65 метрах на восток от земельного участка, на котором располагался склад с пестицидами, в настоящее время построены одно-двухэтажные деревянные жилые дома. Расстояние до центра населенного пункта - 260 метров на север.

2. Источник загрязнения - склад для хранения пестицидов. Склад располагается на земельном участке площадью 100 м. кв. Склад принадлежал ЗАО "Каргополь". Требовал ремонта.

Основные токсичные вещества - хлорорганические пестициды.
3. Способ миграции загрязняющих веществ - поверхностный смыв является средством переноса пестицидов по загрязненному участку, создавая риск загрязнения почвы и дальнейшего распространения с водой. Риск прямого воздействия на людей из-за содержания пестицидов в верхних слоях почвы или из-за распространения с участка посредством людей или ветра.

4. Пути экспозиции людей - попадание загрязнителя в организм человека при вдыхании пыли, употреблении загрязненной воды, пищи, выращенной на участке. Участок легко доступен для людей и домашних/диких животных.

5. Население, подвергающееся воздействию загрязнителя - сток с участка мог попадать с грунтовыми водами, на расстоянии до участка на пасли скот, домашних животных, рядом жилые дома, гуляют дети. Получают питьевую воду централизованную. У местных жителей дома в основном деревянные. Детей в основном по двое в семьях. Жилые зоны частично находятся с подветренной стороны от источника воздушного загрязнения. В настоящее время люди не проходят возле источника загрязнения по дороге на работу/школу. По территории поселения проходят автодороги общего пользования.

6. По результатам исследования в 2020 году подтверждено отсутствие риска от воздействия загрязнителя.

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<thead>
<tr>
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<th>Town/Area Name</th>
<th>Description of the sampling spot</th>
<th>Sampler Full Name</th>
<th>organochlorine pesticides, ppm</th>
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<td>Land area overgrown with weeds</td>
<td>A. Sverlov</td>
<td>&lt;0.01</td>
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<td>A. Sverlov</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>
RU-8530
Former pesticides warehouse, Prigorodny Village, Kargopol District

Figure 18. Map of the site RU-8530
Figure 19. Residential buildings near the former warehouse
Figure 20. Sampling on the site
Figure 21. Residential buildings near the site
Site RU-8530

Investigator Details
Aleksandr Sverlov
Private educational institution "Institute of Management"
+7 915 556 6640
msmar27miwux@yahoo.ru

This site was last updated Thu, Feb 04, 2021 12:42:27 GMT
Would you like to continue editing?

ISA Status: Approved

Part 1 Screening Risk Assessment

Site Name
Former pesticides warehouse, Pogroshy Village, Kargopol District

<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
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</thead>
<tbody>
<tr>
<td>Eastern Europe, Northern Eurasia &amp; Central Asia</td>
<td>Russia</td>
</tr>
</tbody>
</table>

Description

Issue: 0 Isolated site 0 Regional problem
Key Pollutant: Pesticides
Sub-Pollutant: Organochlorine not otherwise specified
Total population at risk: 617
Blacksmith Index: 0

Screening Risk Assessment

Screening Risk Assessment

Release Risk

Site Stakeholders

Linked reports and images

View Users
View my sites
Add new sites
Layout:
Toxic Sites Identification Program

Description

PART 1
Screening Risk Assessment

PART 2
Physical Description

PART 3
Release/Role

PART 4
Site Stakeholders

PART 5
Linked reports and images

Sample Group ID: 11
Population: 51
Test Result: 0.01

Measurement above recommended level: 0–1x 1–2x 2–3x 3–5x 5–25x >25x

Sample Group ID: 1. Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01

Sample Sector: 1

Key Pollutant: Pesticides

Properties: Targeted

Test Result: 0.01

Latitude: 51.10001
Longitude: 38.71367
Toxic Sites Identification Program

Data Source Type:
- Investigator sampling (Lab or XRF)

Data Source Description / Citation:
Certified Laboratory of Federal State Budgetary Institution "State Center of Agrochemical Service" Volgodonsk", Nuz RU 001-21742016.

Population Estimate:

- Estimated additional population possibly at risk:

Partial physical description:

Location & Site Description:
The former pesticide warehouse is located near Pogodnoy Village, Karagol District of Akkemelskaya Oktiab.
The industrial area is within 50 meters west from the warehouse. The nearest industrial building is within 150 meters.

Size of Contaminated Area:
- 100–500 m²

Estimated depth of contamination:
- 20 cm
## Toxic Sites Identification Program

**Is there a strong smell associated with the site attributed to contamination?**

- Yes
- No

### Soil Group
- Soil Texture
- Clay Content
- Silt Content
- Sand

### Land Use
- Population Density
- Land Use
- Natural Area

List the number of people in the following categories:

### Site accessibility to animals that are later consumed by humans:

- Food animals / livestock: 0
- No crops are produced within: 0

**Type of Water Body:**
- Small River / Stream
- No

**What is the groundwater used for?**
- Not Known
- Yes

If water at the site is contaminated, is there another source of clean water available?

- Yes

Describe the access to the contaminated area.

Describe the ground cover over the contaminated area.

### Linked reports and images
Description

View Users
View my sites
Add new sites
Layout:

PART 1 Screening Risk Assessment

PART 2 Physical Description

PART 3 Release Risk

PART 4 Site Stakeholders

PART 5 Linked reports and images

Is there permanent surface water on the site?

Yes
No

Is there evidence of shallow water table or ground water?

No

Is the site in flood plain?

No

Distance to the closest river or water body downstream of the contaminated site

1 km to 5 km

Distance to the closest well in which direction?
Toxic Site Identification Program

- Протокол испытаний № 0.2762 от 13.11.2020 г. (lab protocol sample 9k)
- Протокол испытаний № 0.2763 от 13.11.2020 г. (lab protocol sample 10k)
- Протокол испытаний № 0.2764 от 13.11.2020 г. (lab protocol sample 11k)
- Протокол испытаний № 0.2765 от 13.11.2020 г. (lab protocol sample 12k)
- samples_log_2020/Картональный журнал lg Russian
- Вывод нефтепродуктов жидкость.png residential buildings
- Вывод нефтепродуктов. Заросли участв асфальтовых покрытий.jpg cleanup site
- Вывод нефтепродуктов. Линии электропередачи.png Power lines above the warehouse
- Вывод нефтепродуктов. Запасы нефтепродуктов.jpg storage on the site
- Вывод нефтепродуктов. Отображение расположения.jpg taking coordinates
- Вывод нефтепродуктов. Отбор проб.jpg sampling
- Вывод нефтепродуктов. Отбор проб.jpg samples on the site
- Вывод нефтепродуктов. Расстояние до жилых домов.jpg residential buildings near the site
- Вывод нефтепродуктов. Расстояние до зданий.jpg industrial buildings
- Вывод нефтепродуктов. Планировка.jpg Indications to the site
- Карта схема карельский район.jpg map(Latvia)

Description

PART 1 Screening Risk Assessment

PART 2 Physical Description

PART 3 Release Risk

PART 4 Site Stakeholders

PART 5 Linked reports and images

Expected Intervention Description

Describe possible measure that could be taken to mitigate risk. Please include an estimated timeframe and key activities:

Estimated volume of contaminant: Enter an estimated volume m³

Initial Intervention Type: Select an intervention type

Describe long-term intervention approach:
Toxic Sites Identification Program

Note any physical, political or social barrier to the intervention.

Who is Local Champion? Provide contact details.

Activities carried out to date:

Site Assessment Report 6. RU-8531

Former pesticides warehouse, Rovdino Village, Shenkurskiy District, Arkhangelskaya Oblast

The source of contamination is a brick pesticide warehouse located in Shenkurskiy forestry enterprise, Shenkurskiy District of Arkhangelskaya Oblast. Currently the warehouse building is in ruins.

The last inventory of obsolete pesticides there was conducted in 2003. During that inventory 773 kg of obsolete pesticides were found.

The Puya River flows at a distance of 1 km from the site. There is industrial area within 400-600 meters from the site. The distance to the nearest settlement is 650 meters. The road is within 215 meters from the site.

The key pollutants are organochlorine pesticides.

Local residents do not have water supply and use drinking water from private wells. Surface runoff could carry pesticides off-site. Residential areas are downwind of the site. The dust contaminated with pesticides could be carried by wind.

The site is easily accessible to people and animals. People could be exposed though inhalation of vapors, inhalation and ingestion of dust, skin contact or consumption of vegetables grown at the site.

The conducted assessment did not confirm contamination on the site with pesticides.

1. Местонахождение и географическое описание территории - территория Шенкурского лесхоза (лесопитомник), Шенкурского района. В настоящее время на участке склада нет. До реки Пуя 1 км, в 400-600 метрах - производственная зона, расстояние до населенного пункта Барановская - 650 метров.

2. Источник загрязнения - склад для хранения пестицидов типовой, кирпичный. В нем проходило перезатаривание устаревших пестицидов. Основные токсичные вещества - хлорорганические пестициды.

3. Способ миграции загрязняющих веществ - поверхностный смыв является средством переноса пестицидов за пределы загрязненного участка, создавая риск загрязнения почвы и дальнейшего распространения с водой. Риск прямого воздействия на людей из-за содержания пестицидов в верхних слоях почвы или из-за распространения с участка посредством людей или ветра.
4. Пути экспозиции людей - попадание загрязнителя в организм человека при вдыхании пыли, употреблении загрязненной воды, пищи, выращенной на участке. Участок легко доступен для людей и домашних/диких животных.

5. Население, подвергающееся воздействию загрязнителя - сток с участка мог попадать с грунтовыми водами в озеро, на расстоянии до жилой зоны пасли скот, в зоне жилых домов гуляют дети. Питьевая вода не централизованная. У местных жителей дома деревянные. Детей в основном по двое в семьях. Жилые зоны частично находятся с подветренной стороны от источника воздушного загрязнения. В настоящее время люди не проходят возле источника загрязнения по дороге на работу/школу. Расстояние до автотрассы 215 м.

6. По результатам исследования в 2020 году подтверждилось отсутствие риска от воздействия загрязнителя.

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<thead>
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<th>Latitude</th>
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<th>Town/Area Name</th>
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<th>Sampler Full Name</th>
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<td>A. Sverlov</td>
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Figure 22. Map of the site RU-8441
Figure 23. The ruins of the warehouse
Figure 24. Sampling on the site
Figure 25. Planting of the forestry enterprise and remains of the warehouse building
Site RU-8531

Investigator Details
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Private educational institution “Institute of Management”
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mimir79mir@yandex.ru

This site was last updated
Thu Feb 04 2021 13:06:33 GMT
Would you like to continue editing?

ISI Status: Approved

Screening Risk Assessment

Site Name:
Former pesticides warehouse, Rowdno Village, Shenskisky District

Region: Eastern Europe, Northern Eurasia & Central Asia
Country: Russia

Toxic Sites Identification Program

Issue: 0 isolated site 0 regional problem
Key Pollutant: Pesticides
SubPollutant: Organochlorines
Total population at risk: 19
Blacksmith Index: 0
Toxic Sites Identification Program

Latitude: 51.72412
Longitude: 42.50891

Abstract

The source of contamination is a brick pesticide warehouse located in Shekuskij forestry enterprise, Shekuskij District, the warehouse building is in ruins. The key pollutants are organochlorine pesticides. Local residents do not have water supply and use drinking water from a surface runoff could carry pesticides off-site. Residential areas are downstream of the site. The dust contaminated with a site is easily accessible to people and animals. People could be exposed though inhalation of vapors, inhalation and if consumption of vegetables grown at the site.

Sample Group ID: 1
Population: 1
Measurement above recommended level: 0-1x 1-2x 2-3x 3-3x 5-23x >25x

Sample Group ID: 1. Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01

Key Pollutant: Pesticides
Sub-Pollutant: organochlorine not otherwise specified

Properties:
- Targeted
- Soil - Residential

Test Result: 0.01

Latitude: 51.72412
Longitude: 42.50891
Toxic Sites Identification Program

Data Source Type: Investigator sampling (Lab or XRF)
Test Data Certainty: High

Data Source Description / Citation:
Certified Laboratory of Federal State Budgetary Institution "State Center of Agrochemical Service" Volgogradskiy, Nu RF, 0001 217148. The protocol No.173/3

Population Estimate:
- 2
- Population estimate confirmed by local authority

- Sample Group ID: 2. Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01
- Sample Group ID: 3. Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01
- Sample Group ID: 4. Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01
- Sample Group ID: 5. Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01
- Sample Group ID: 6. Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01
- Sample Group ID: 7. Key Pollutant: Organochlorine not otherwise specified, Test Result: 0.01

Estimated additional population possibly at risk:

- Part 2: Physical Description
  - Location & Site Description:
    - The source of contamination is a brick pesticide warehouse located in Sherkasky forestry enterprise, Sherkasky District. The warehouse building is in ruins.
    - The last inventory of obsolete pesticides there was conducted in 2003. During that inventory 770 kg of obsolete pesticide was found. The Peipa River flows at a distance of 1 km from the site. There is industrial area within 250-500 meters from the site.
    - The key pollutants are organochlorine pesticides.
    - Local residents do not have access to contaminated drinking water from private wells. Surface runoff could carry pesticides off-site. Residential areas are downwind of the site. The dust contaminated with pesticides is blown into the surrounding area.
    - The site is easily accessible to people and animals. People could be exposed through inhalation of vapors, ingestion of food, and contact with contaminated soil.

- Size of Contaminated Area:
  - 100 - 500 m²
- Estimated depth of contamination:
  - 5
**Toxic Sites Identification Program**

**Source Industry:**
- [ ] Natural Occurring
- [ ] Active/Legacy
- [ ] Legacy
- [ ] Formal

**Documented Health Effects:** [No]

**Describe credible health impact of pollutant. Append any existing studies (scan and pdf) to Part 4. Indicate anecdotal evidence or risk.**

- Достоверные воздействия загрязнителя на здоровье нет. Недостаточные данные о воздействиях загрязняющих веществ - поверхностных и подземных - не являются средством перевода пастбищ загрязнения почвы и дальнейшего распространения с водой. Риск прямого воздействия на людей из-за оценки опасности связан с распространением в окружающей среде от источника загрязнения.

**Additional Notes:**

---

**Toxic Sites Identification Program**

**Part 3: Release Risk**

- **Is there permanent surface water on the site?** No
- **Is there evidence of high water table or groundwater?** No
- **Is there an oil spill?** No

**Distance to the closest river or water body downstream of the contaminated site:** 300 m to 1 km

**Distance to the closest well in which direction?**
 Toxic Sites Identification Program

Position of the contaminants relative to the slope
- Above ground level and slope to flat: [ ] Yes

Site Stakeholders

Number of stakeholders interviewed: 4
Number of males: [ ]

Stakeholder Type:
- Other Agency:

Name:
- Forest workers / Работники лесничества

Address:
- 403000, Arkhangelskaya Oblast, the city of Shchekino, usadba Lisakhovskaya street 166590, Arkhangelskaya oblast, город Шекино улица Усадьба Лисаховская

Meeting Dates, Notes & Key Findings
- 07.10.2020 г. The workers told the history of the warehouse
  - Работники рассказали историю магазина

Linked reports and Images

- Протокол испытаний № 0.7270 от 11.11.2020 г. pdf / lab protocol sample 131
- Протокол испытаний № 0.7271 от 11.11.2020 г. pdf / lab protocol sample 131
- Протокол испытаний № 0.7272 от 11.11.2020 г. pdf / lab protocol sample 131
- Протокол испытаний № 0.7273 от 11.11.2020 г. pdf / lab protocol sample 131
- Протокол испытаний № 0.7274 от 11.11.2020 г. pdf / lab protocol sample 131
- Протокол испытаний № 0.7275 от 11.11.2020 г. pdf / lab protocol sample 131
- Протокол испытаний № 0.7276 от 11.11.2020 г. pdf / lab protocol sample 131

https://www.cranmalakabkino.org/akap/G2/713
Toxic Sites Identification Program

Note any physical, political or social barrier to the intervention.

Who is Local Champion? Provides contact details.

Activities carried out to date:

https://www.contaminatedsites.org/ark/65511

09.02.2021

Toxic Sites Identification Program

Description

View Users
View my data
Add new sites
Layout:

PART 1 Screening Risk Assessment

PART 2 Physical Description

PART 3 Releases

PART 4 Site Stakeholders

PART 5 Linked reports and images

https://www.contaminatedsites.org/ark/65511

09.02.2021

Toxic Sites Identification Program

Description

View Users
View my data
Add new sites
Layout:

PART 1 Screening Risk Assessment

PART 2 Physical Description

PART 3 Releases

PART 4 Site Stakeholders

PART 5 Linked reports and images

https://www.contaminatedsites.org/ark/65511
Site Assessment Report 7. RU-8543

Former warehouse of pesticides, Atamanovo Village, Sukhobuzimsky District

The former warehouse of pesticides is located next to the Children's Camp "Taezhny" in the village of Atamanovo, Sukhobuzimsky District. The camp is located in a pine forest on the bank of the Yenisei River 100 km north of Krasnoyarsk city.

The Atamanovo Village is located 400 meters from the warehouse. The Yenisei River flows southeast of the warehouse.

The village of Atamanovo is located 28 km from the regional center Sukhobuzimskoye Village. The population of Atamanovo Village is 1968 people. There is a school for 290 students in the village. About 1500 children come to the camp during the summer.

The central farmstead of the Taezhny breeding farm is located in Atamanovo Village. Residential buildings in the village are mostly wooden one-story houses with solid fuel stove heating. The water supply is centralized. Also there is a deep-water well and a water tower in the village.

The wooden warehouse building now is completely destroyed. Only the concrete foundation remains. The area of the warehouse building was 10*14 meters. The site is covered with rubble of the former warehouse building.

The last inventory of the warehouse was conducted during the ACAP project "Environmental justification for the management of the stock of obsolete pesticides in the Russian Federation" in 2008. The specialists found about 1 ton of pesticides that appeared to be DDT at the site. The powder was light gray in color with a specific odor packed in decayed paper bags with poorly readable labels.

The project team did not find traces of pesticides and didn’t smell DDT during the site assessment in October 2020. The garbage and rubble of the warehouse building remained the same as in 2008.

The rainfall and wind could wash pesticides away and carry around the area.

The project team did not find evidence of human activities within 100 meters from the site.

The migration of pesticides to the residential areas is possible through air, by rain flow, with melt waters and by transport passing by. There is no curbstone on the asphalt road adjacent to the warehouse.

Former workers of Taezhny Camp said that DDT was used as an insecticide against flies, mosquitoes, gadflies. Workers pollinated forest areas and fields adjacent to the camp.
Former camp worker Vasily Savelyevich Kushnir (phone +7 323 305 59 69) confirmed the presence of DDT in the former warehouse. He said that it was used in the camp.

Former camp worker Olga Anatolyevna Takbilatova (phone +7 963 254 97 25) also confirmed the presence and use of pesticides.

They didn’t have information that the pesticides were removed from the site and taken to a landfill.

The project team took samples from 3 sides of the warehouse. They also took line samples in two directions: towards the Yenisei River and towards the village of Atamanovo. The migration of pesticides in both directions is most likely with water and wind.

The soil at the site contains gravel has a high absorption capacity, so pollutants could penetrate deep into the soil.

The nearest residential building doesn’t have central water supply. The residents bring water from a well for drinking. There was no evidence of pesticide poisoning among local population.

The area of the camp is fenced and guarded. The children cannot get to the warehouse.

There is very little traffic near the. During the three days visiting the site, the investigators recorded the one truck and two cars passing by.

The site assessment found trace amounts of organochlorine pesticides at the site.
муском и остатками конструкций склада. В период проведения работ по углубленной инвентаризации запасов устаревших пестицидов, выполняемого в рамках проекта АКАП «Экологическое обоснование управление запасом устаревших пестицидов на территории Российской Федерации» в 2008 году, на развалинах склада в рассыпанном состоянии в полуистлевших бумажных пакетах и мешках с нечитаемой маркировкой находился предположительно ДДТ светло-серого цвета около 1 тонны с сильным характерным запахом. Диаметр кучи составил диаметре 10 м. В период проведения экологической оценки участка в октябре 2020 г. запах не ощущался. Мусор и обломки склада находились на прежнем месте, видимых следов пестицидов не обнаружено. На территории, прилежащей к складу, находятся разрушенные производственные постройки. В 5 м от склада проходит асфальтированная дорога, идущая из поселка Атаманово к жилому дому на 3 квартиры на территории оздоровительного комплекса. В доме проживает 5 человек. Расстояние до склада 250 м.

При обследовании бывшего склада было сделано предположение, что ранее хранившиеся в нем пестициды препараты никуда не вывозились, а были размыты сезонными водами, дождевыми осадками и разнесены ветром. Поселок Атаманово находится на расстоянии 400 метров от склада. Река Енисей протекает в юго-восточном направлении от склада. Тропинок и мест пребывания людей в радиусе 100 м от склада не установлено. Перенос пестицидов к зонам жилых застроек возможен по воздуху, а также дождевыми и талыми водами и проезжающим мимо автотранспортом. На прилегающей к складу асфальтированной дороге не имеется бордюрного камня.

Со слов бывших работников МУП ДСОК «Таежный», дуст ДДТ использовался в качестве инсектицида при борьбе с насекомыми (мухами, комарами, оводами). Им опыляли участки леса и поля, прилегающие к лагерю. Бывший работник лагеря № 4 Кушний Василий Савельевич (т. 8 323 305 59 69), подтвердил наличие в бывшем складе дуста ДДТ и его применение на территории лагеря. Бывший работник лагеря Такбылатова Ольга Анатольевна (т. 8 963 254 97 25) также подтвердила наличие и применение данного препарата. Сведений о возможном вывозе веществ с разрушенного склада на полигон длительного хранения не имеется.

Одна из сторон бывшего склада в северном направлении прилегала к производственной постройке с бетонным полом. Постройка в настоящее время полностью разрушена. Сетевые пробы отобраны с 3-х сторон склада, где имеется почвенный покров, а линейные пробы отобраны в двух направлениях: в сторону р. Енисей и в сторону п. Атаманово. Перенос пестицидов в обоих выбранных направлениях наиболее вероятен паводковыми водами и ветром. В летнее время перенос пестицидов дождевыми осадками маловероятен, т.к. грунты гравелистые, имеют высокую поглощающую способность, поэтому загрязняющие вещества могли проникнуть глубоко в почву. Ближайший жилой
дом не имеет центрального водоснабжения, вода привозная. Случаев отравления ядохимикатами среди местного населения не установлено.

Территория оздоровительного комплекса «Таежный» огорожена и охраняется. Каждый из имеющихся 6 лагерей также огорожен. Перемещения детей по территории бывшего лагеря №4 исключено.

Движения транспорта возле участка имеет случайный характер. В период проведения исследований за три дня нахождения исследователей в данном месте зафиксирован проезд трех единиц автотранспорта: 1 грузовая машина и 2 легковых.

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Figure 23. Map of the site RU-8543
Figure 24. General view
Figure 25. The remains of the warehouse building
Site RU-8543

Investigator Details
Vasily Kuligin
Federal State Unitary Enterprise "Siberian Scientific and Research Institute of Engineering and Reclamation"
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kvern@yandex.ru

This site was last updated
Thu Feb 04 2021 13:13:01 GMT

Site Name
Former warehouse of pesticides, Abakanovo Village, Sakhobulinsky District

Screening Risk Assessment

Toxic Sites Identification Program

Date: October 24, 2020

Key Pollutant: Pesticides

Total population at risk: 1087

Blacksmith index: 1
Toxic Sites Identification Program

Abstract

The former warehouse of pesticides is located next to the Children's Camp "Tashkent" in the village of Abakanovka, Sakha. The wooden warehouse building has completely disappeared. Only the concrete foundation remains. The rain and wind could wash pesticides away and carry around the area. The migration of pesticides to the reservoir flow with rainwater and by transportation by water. The site assessment found trace amounts of organochlorine pesticides at the site.

PART 1: Screening Risk Assessment
PART 2: Physical Description
PART 3: Release Risk
PART 4: Site Stakeholders
PART 5: Linked reports and images

Sample Group ID: 1. Key Pollutant: DDT, Test Result: 0

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Key Pollutant: Pesticides

Properties: Composite

Test Result: 0.0012
### Toxic Sites Identification Program

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**Certified laboratory: Center for environmental development and audit**
Protocol # 02-164

**Population Estimate**

- `> 1`

- Population estimate confirmed by local authority

- **Sample Group ID:** 1, Key Pollutant: DDT, Test Result: 0.02
- **Sample Group ID:** 1, Key Pollutant: DDT, Test Result: 0.01
- **Sample Group ID:** 1, Key Pollutant: DDT, Test Result: 0
- **Sample Group ID:** 1, Key Pollutant: HCH (Hexachlorocyclohexane), Test Result: 0
- **Sample Group ID:** 1, Key Pollutant: HCH (Hexachlorocyclohexane), Test Result: 0

---

**Source:** [www.contaminatedsites.org](http://www.contaminatedsites.org)
Toxic Sites Identification Program

Sample Group ID: 2. Key Pollutant Hexachlorobenzene (Benzene Hexachloride), Test Result: 0
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Estimated additional population possibly at risk:

Physical Description:

Location & Site Description:
The former warehouse of pesticides is located next to the Children's Camp "Zaichny" in the village of Atamannovo, Suk in a pine forest on the bank of the Yenisei River 180 km north of Krasnoyarsk City.
The Yenisei River is located 400 meters from the warehouse. The nearest river is southeast of the warehouse.
The village of Atamannovo is located 28 km from the regional center - Sukholuchestrovsky Village. The population of Atamannovo school for 296 students is in this village. About 1,000 children come to the camp during the summer.
The central part of the Zaichny breeding farm is located in Atamannovo Village. Residential buildings in the village with soft limestone heating. The water supply is centralized. Also there is a deep-water well and a water tower in the village.
The wooden warehouse building now is completely destroyed. Only the concrete foundation remains. The site is covered with rubble of the former warehouse building.

Size of Contaminated Area: + 100 ml
Estimated depth of contamination: Enter estimated depth

Was a test pit dug to determine depth of contamination?

Yes

Is there a strong smell associated with site attributed to contamination?

No
### Toxic Sites Identification Program

**KASTANGZEMS, CHERNOZEMS, PHACOZEMS, UMBRISOLS**

<table>
<thead>
<tr>
<th>Clay Content</th>
<th>Silt Content</th>
<th>Sand</th>
</tr>
</thead>
<tbody>
<tr>
<td>O1</td>
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<td>85%</td>
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</table>

<table>
<thead>
<tr>
<th>Land Use</th>
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</thead>
<tbody>
<tr>
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<td>1:1</td>
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</tbody>
</table>

**Land Use:**
- Natural Area ✔
- Vacant Land ❌

**List the number of people in the following categories:**

<table>
<thead>
<tr>
<th>On Site</th>
<th>Within 50 meters</th>
<th>Within 100 meters</th>
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<tbody>
<tr>
<td>Live</td>
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<td>76</td>
</tr>
<tr>
<td>Work</td>
<td>0</td>
<td>52</td>
</tr>
</tbody>
</table>

**Total across all cate:**

**Site accessibility to animals that are later consumed by humans:**
- select one

**Type of Water Body:**
- Large River

**What is the groundwater seeping?**
- Not Known

**If water at the site is contaminated, is there another source of clean water available?**
- No

**Describe the access to the contaminated area:**
- Easy access, few barriers to entry

**Describe the ground cover over the contaminated area:**
- The site is covered with contaminated condition
Toxic Sites Identification Program

Active/Legacy
- Legacy

Formal

Documented Health Effects: No

Describe credible health impact of pollutant. Append any existing studies (scan and pdf) to Part 6. Indicate anecdotal evidence cited.

Additional Notes:

Is there permanent surface water on the site?
- No

Is there evidence of a high water table or groundwater?
- No

Is the site subject to flooding?
- No

Distance to the closest river or water body downstream of the contaminated site
- Select a distance

Distance to the closest well
- No well in vicinity

Position of the contaminants relative to the slope
- Above ground level and slope steep

- Select a direction

- Yes
### Toxic Sites Identification Program

<table>
<thead>
<tr>
<th>Stakeholder Type</th>
<th>Number of stakeholders interviewed</th>
<th>Number of sites</th>
<th>Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Agency 1</td>
<td>2</td>
<td>1</td>
<td>Olga Anatolyevna Tukhtatova</td>
<td></td>
</tr>
</tbody>
</table>

#### Meeting Dates, Notes, & Key Findings

- Phone Number: +7 963 354 97 25
- Email: 

### Toxic Sites Identification Program

<table>
<thead>
<tr>
<th>Stakeholder Type</th>
<th>Number of stakeholders interviewed</th>
<th>Number of sites</th>
<th>Name</th>
<th>Address</th>
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</thead>
<tbody>
<tr>
<td>Other Agency 1</td>
<td>2</td>
<td>1</td>
<td>Yaroslav Sevryuchkov</td>
<td></td>
</tr>
</tbody>
</table>

#### Meeting Dates, Notes, & Key Findings

- Phone Number: +7 373 305 59 49
- Email: 

### Description

- View Users
- Add new sites
- Layout:

#### PART 1 Screening Risk Assessment

#### PART 2 Physical Description

#### PART 3 Release Risk

#### PART 4 Site Stakeholders

#### PART 5 Linked reports and images
Site Assessment Report 8. RU-8544

Pesticide warehouse in Mokrushenskoye Village of Kazachinsky District, Krasnoyarsky krai

The obsolete pesticide warehouse is located in Mokrushenskoye Village, Kazachinsky District, Krasnoyarsky krai. Currently the warehouse building belongs to local farm. The warehouse has not operated for about 25 years. The warehouse building is wooden and consists of two identical sections. The size of the building is 6 * 8 meters. The warehouse has a slate roof, which is partially destroyed. There are holes in the walls. The windows of the building are filled with boards. There are no locks on the wooden doors, the floor of the warehouse is ground.

The nearest residential buildings are located 120 m to the northwest. The distance to the forest is 200 m. The Yenisei River is within 1.2 km. The area of the warehouse is fenced.

In 2008 there was an inventory of the warehouse during the ACAP project "Environmental justification for the management of the stock of obsolete pesticides in the Russian Federation". The specialists found about 3.5 tons of obsolete pesticides including: tseb in tubes and in bulk - 285 kg, granosan in barrels - 825 kg, 2,4,5-trichlorophenol TCP in bulk and in damaged bags - 105 kg, unknown mercury-containing powdery substance TMTD - 420 kg, phenoram – 370 kg, baytan – 25 kg, trialate – 400 l, hexochlorane – 120 kg, as well as an unknown powdery gray substance – about 1 ton.

The project team found about 500-600 kg of pesticides on the floor of the warehouse during the assessment. There was strong smell in the warehouse building. Local residents feel it in their homes at a distance of 120 m from the warehouse. The migration of pesticides from the warehouse is possible both through the air through cracks in the walls and windows, and through washing out by rainfall due to damage to the roof. The access of people into the warehouse is not possible. The door and windows are blocked.

During the implementation of the regional program "Waste management of the Krasnoyarsk Territory", the obsolete pesticides were removed from the warehouse and placed at the Serebristy landfill located in the suburbs of Krasnoyarsk. All of the paper, plastic, cardboard and metal containers with pesticides were damaged.

CJSC "Zeleny Gorod" implemented the cleanup. Unfortunately, the organization did not clean up the site thoroughly. The workers did not completely clean the spilled pesticides from the warehouse, did not excavate the soil from the warehouse building.

A local resident Alexander Alexandrovich Elistratov (tel. +7 933 328 04 48) lives at 9, Opitnaya Street. His house is within 120 meters from the warehouse. Alexander Elistratov smells pesticides when the western and southwestern winds blow.
Mikhail Vladimirovich Zhulikov (tel. +7 923 363 42 93) lives at 10, Opitnaya Street. He said that he also smells pesticides. The smell of chemicals spreads near the warehouse during calm weather.

Weeds grow around the warehouse area. There is noticeably less grass near the warehouse door. It is possible that the soil was heavily contaminated during the loading of pesticides in this place.

There is a path 20 meters from the warehouse. Employees of the farm walk on it every day.

The area of the site is flat. Investigators took linear samples towards residential buildings and down the ravine.

There is a deep water well in the village. Water from there is supplied to local residents by centralized water system. About 30% of the residents use wells in their private yards. People don't complain about the quality of the water.

Local residents mostly have one-story wooden houses. Residential buildings are located on the leeward side of the warehouse.

There is a road within 30 meters from the site. About 5-7 cars per day drive on that road. Transport can carry pollutants into the village.

The assessment found pesticide contamination at the site.
реализации краевой целевой программы «Обращение с отходами Красноярского края» устаревшие пестициды из склада были вывезены и размещены на полигоне «Серебристый», находящийся в пригороде г. Красноярска. Работа по вывозу пестицидов была возложена на подрядную организацию ЗАО «Зеленый город», которая не выполнила полную очистку склада от рассыпанных пестицидов, не произвела выемку грунта внутри склада, покрытого слоем рассыпанных пестицидов. Со слов местного жителя Елистратова Александра Александровича т. 8 933 328 04 48, проживающего в доме по ул. Опытная д. 9, находящегося на расстоянии 120 м от склада, запах дуста постоянно ощущается при западном и юго-западном ветре. Второй местный житель, Жуликов Михаил Владимирович (т. 8 923 363 42 93), проживающий по адресу ул. Опытная д. 10 сообщил, что также ощущает данный запах. Запах химикатов распространяется возле склада и в безветренную погоду.

Перенос пестицидов, находящихся на складе возможен, как по воздуху через щели в стенах и окнах, так и вымываться дождевыми осадками из – за повреждения крыши. Проход посторонних лиц в склад в настоящее время исключен – дверь и окна забиты. Территория вокруг склада заросла бурьяном, со стороны дверей склада трава растет заметно слабее, что говорит о возможном сильном загрязнении почвы пестицидами в период проведения погрузо-разгрузочных работ. В 20 м от склада находится тропинка, по которой перемещаются работники фермерского хозяйства.

Местность, на которой расположен склад обладает неровным рельефом. Склад стоит на краю холма, поэтому при выборе направления для отбора линейных проб было выбрано два – одна линия была проложена в сторону жилых домов вниз по склону холма, другая была проложена вниз по лощине. Сетевые сборные пробы в количестве 6 штук отобраны вокруг склада.

Водоснабжение населенного пункта производится от глубинного водозабора, около 30 % жителей пользуются колодцами, вырытыми на частных подворьях. Жалоб на плохое качество воды не имеется. Жилые дома расположены с подветренной стороны, постройки однотажные, деревянные. На расстоянии 40 м от склада у местных жителей имеются хозяйственные постройки, вдоль которых проложены тропинки. Так же за забором, огораживающим территорию, на расстоянии 30 м от склада проходит полевая дорога, по которой проходит 5 – 7 машин в день. Данное обстоятельство может приводить к переносу загрязненных веществ по всему с. Мокрушинское.

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<th>Descripti on of the sampling spot</th>
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<th>alpha-HCH, ppm</th>
<th>gamma-HCH (lindane), ppm</th>
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**RU-8544**  
Pesticide warehouse in Mokrushanskoye Village of Kazachinsky District
Figure 26. Map of the site RU-8544

Figure 27. Former warehouse building
Figure 28. Inside the warehouse building

Figure 29. Inside the warehouse building
Figure 30. Sampling near the warehouse building
Figure 31. Pesticide packaging – 12% DDT / Hexachlorocyclohexan
Site RU-8544

Investigator Details
Vasily Kuligin
Federal State Unitary Enterprise "Siberian Scientific and Research Institute of Engineering and Reclamation"
+7 (913) 827-43-35 or +7 (939) 244-39-69
kuligin@vandex.ru

This site was last updated Thu Mar 04 2021 14:04:20 GMT
Would you like to continue editing?

EIA Status: Approved

Screening Risk Assessment

<table>
<thead>
<tr>
<th>Site Name</th>
<th>Pesticide warehouse in Mukushenskoye Village of Karataisky District</th>
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<tbody>
<tr>
<td>Region</td>
<td>Eastern Europe, Northern Eurasia &amp; Central Asia</td>
</tr>
<tr>
<td>Country</td>
<td>Russia</td>
</tr>
<tr>
<td>State</td>
<td>KZ</td>
</tr>
</tbody>
</table>

Toxic Sites Identification Program

Issue:  ☐ isolated site  ☐ regional problem

Key Pollutant: Pesticides
Sub-Pollutant: Lindane, Hexachlorocyclohexane

Total population at risk: 46471
Blacksmith Index: 3
Toxic Sites Identification Program

Latitude: 37.110874
Longitude: 93.170051

Abstract
The obsolete pesticide warehouse is located in Maksateemsky Village, Kassakhinsky District, Kasnoyarsky krai. The nearest residential buildings are located 120 m to the northeast. The distance to the forest is 200 m. The Yenisei warehouse is fenced. The project team found about 500-600 kg of pesticides on the floor of the warehouse during the warehouse cleaning. The migration of pesticides from the warehouse is possible both through the air through cracks in the walls and windows due to damage to the roof. The access of people into the warehouse is not possible. The door and windows are blocked.

Part 1: Screening Risk Assessment

Part 2: Physical Description

Part 3: Release Risk

Part 4: Site Stakeholders

Part 5: Linked reports and images
### Toxic Sites Identification Program

#### Data Source Type:
- Local organization/NGO

#### Test Data Certainty:
- High

#### Data Source Description / Citation:
Certified laboratory "Center for environmental development and audit" Protocol # 02-172

#### Population Estimate:
- Estimated: 745
- Population estimate confirmed by local authority

#### Sample Groups:
- **Sample Group ID: 1**
  - Key Pollutant: HCH (Hexachlorocyclohexane), Test Result: 10
- **Sample Group ID: 2**
  - Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 2.1
- **Sample Group ID: 3**
  - Key Pollutant: Hexachlorobenzene (Benzene Hexachloride), Test Result: 0.1
- **Sample Group ID: 4**
  - Key Pollutant: Other, Test Result: 0.19
- **Sample Group ID: 5**
  - Key Pollutant: Other, Test Result: 0
- **Sample Group ID: 6**
  - Key Pollutant: HCH (Hexachlorocyclohexane), Test Result: 25

---

**Notes:**
- Additional sample groups and test results may be available. Please refer to the linked reports and images for more information.

---

**Reference:**
[Link to toxic sites identification program](https://www.cornell.edu)
Toxic Sites Identification Program

- Sample Group ID: 1, Key Pollutant: DDT, Test Result: 0.01
- Sample Group ID: 1, Key Pollutant: HCH (Hexachlorocyclohexane), Test Result: 0.02
- Sample Group ID: 1, Key Pollutant: HCH (Hexachlorocyclohexane), Test Result: 0.03
- Sample Group ID: 1, Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.01
- Sample Group ID: 1, Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.01
- Sample Group ID: 1, Key Pollutant: Hexachlorobenzene (Benzen Hexachlorides), Test Result: 0
- Sample Group ID: 1, Key Pollutant: Other, Test Result: 0

- Sample Group ID: 2, Key Pollutant: DDT, Test Result: 0
- Sample Group ID: 2, Key Pollutant: HCH (Hexachlorocyclohexane), Test Result: 0.02
- Sample Group ID: 2, Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.03
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- Sample Group ID: 2, Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.02
- Sample Group ID: 2, Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0.01
- Sample Group ID: 2, Key Pollutant: Hexachlorobenzene (Benzen Hexachlorides), Test Result: 0
- Sample Group ID: 2, Key Pollutant: Other, Test Result: 0

Estimated additional population possibly at risk:

Part 2: Physical Description

Location & Site Description:

https://www.cranemarshlab.com/6544/part1
Toxic Sites Identification Program

Building is 6.5' x 8' meters. The warehouse has a slate roof, which is partially destroyed. There are holes in the walls. The boards. There are no locks on the wooden doors, the floor of the warehouse is concrete. The nearest residential buildings are located 100 m in the northeast. The distance to the forest is 200 m. The Yankee warehouse is located.

In 2008 there was an inventory of the warehouse during the ACAP project "Environmental justification for the manager the Russian Federation". The specialists found about 3.5 tons of obsolete pesticides including: "tebuthiuron" and in bulk 2.46 m. trichloroethylene TCE in bulk and in damaged bags - 100 kg, unknown mercury-containing powdery substance TR.

Size of Contaminated Area: 100 m

Was a test pit dug to determine depth of contamination? Yes

Is there a strong smell associated with the site attributed to contamination? Yes

Land Use: 

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Population Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live</td>
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<tr>
<td>Work</td>
<td>102</td>
</tr>
<tr>
<td>Visit</td>
<td>2</td>
</tr>
</tbody>
</table>

Total across site: 104

Site accessibility to animals that are later consumed by humans: Accessible to recreational food animals

How far are crops produced from the contaminated area? For crops are produced within 100 meters.
Toxic Sites Identification Program

What is the groundwater sector?
- [ ] Select one

If water at the site is contaminated, is there another source of clean water available?
- No

Describe the access to the contaminated area:
- Controlled access; entry difficult
- There is complete grass cover

Source Industry:
- [ ] Agriculture

Active/Legacy:
- [ ] Legacy
- [ ] Formal

Documented Health Effects:
- [ ] No

Describe credible health impact of pollutant. Append any existing studies (e.g., soil and pdf) to Part 4. Indicate associated evidence.

PART 1 Screening Risk Assessment

PART 2 Physical Description

PART 3 Release Risk

PART 4 Site Stakeholders

PART 5 Linked reports and images
Toxic Sites Identification Program

Distance to the closest river or water body downstream of the contaminated site

- 300 m to 2 km

Distance to the closest well

- Within 500m of contamination

Position of the contaminant relative to the slope

- Aboveground level and slope is flat

Number of containers on site

- Containers on site

Other pollutant storage

- Release or spill matrix

Please list the primary chemicals stored at the site:

to be tubes and in bulk - 265 kg, granos in barrels - 821 kg, 2,4,5-trichlorophenoxy TCP in bulk and in damaged bags - 1

Specify the concentration of pesticide

- Inventory or written records

Identification Method

- ppm

Location

- Inside building with poor roof

Building Type

- Incomplete or poor walls

Please describe the floor

- Soil

- Other or poor cover

---

Toxic Sites Identification Program

Part 4 Site Stakeholders

Number of stakeholders interviewed

- Enter total interviewed

2

Number of males

- Num

1

Stakeholder Type

- Select type of stakeholder

Name

- Alexander Alexandrovich Elistratov

Address

A local resident, Alexander Alexandrovich Elistratov (tel. +7 933 328 04 48) lives at 1, Capitane Street.

Phone Number

- +7 933 3280448

Meeting Dates, Notes, & Key Findings

https://www.contaminatedsites.org/poll544/part1
Toxic Sites Identification Program

Stakeholder Type
select type of stakeholder

Name
Mikhail Vladimirovich Zhukov

Address
Mikhail Vladimirovich Zhukov (tel. +7 923 363 42 93) lives at 10, Opirsaya Street.

Phone Number: +7 923 363 42 93

Meeting Dates, Notes, & Key Findings

https://www.contaminatedsites.org/sites/6444/part1

06.02.2021

https://www.contaminatedsites.org/sites/6444/part1

Linked reports and Images

https://www.contaminatedsites.org/sites/6444/part1

166
**Toxic Sites Identification Program**

- 11 Буферная зона здания ПЕЧА.jpg paper bag from the pesticides
- 12 Расфасованные пестициды внутри склада.jpg spilt pesticides inside the warehouse
- 13 Отбор линейных проб проб.jpg sampling
- 14 Отбор отдельных проб.jpg sampling
- 15 Схема отбора звеньев проб (с. Муроуковское).pdf sampling scheme
- 16 Схема отбора линейных проб (с. Муроуковское).pdf sampling scheme
- 17 Координаты точек отбора звеньев проб (с.Муроуковское) pdf handwritten coordinates
- 18 Координаты точек линейных проб (с. Муроуковское).pdf handwritten coordinates

**Description**

- View Users
- View my sites
- Add new sites
- Layout:

**PART 1 Screening Risk Assessment**

**PART 2 Physical Description**

**PART 3 Release Risk**

**PART 4 Site Stakeholders**

**PART 5 Linked reports and images**

---

**Expected Intervention Description**

**Describe possible measure that could be taken to mitigate risk. Please include an estimated timeframe and key activities:**

**Estimated volume of contaminant:** Enter an estimated value m³
### Toxic Sites Identification Program

#### Description

- View Users
- View my sites
- Add new sites
- Login

#### Note any physical, political or social barriers to the intervention

#### PART 1

- Screening Risk Assessment

#### PART 2

- Physical Description

#### PART 3

- Release Risk

#### PART 4

- Site Stakeholders

#### PART 5

- Linked reports and images

---

https://www.contaminatedsites.org/twitter/65444/part1
Site Assessment Report 9. RU-8546  
Former pesticide warehouse, Nakhvalskoe Village of Sukhobuzimsky District, Krasnoyarsky kray

The former pesticides warehouse is located on the lands of the former state farm "Gorsky". The state farm is located on the northern outskirts of Nakhvalskoe Village of Sukhobuzimsky District, Krasnoyarsk Region. The village of Nakhvalskoye is located 105 km northeastern from Krasnoyarsk city on the bank of Buzim River 8 km from its confluence with the Yenisei River.

The residential buildings are within 300 meters from the site. Forest is within 300 meters from the site. The nearest watercourse is within 500 meters.

The population of the village is 1771 people. There is an elementary school in the village.

The warehouse belonged to Gorsky state farm until 1992. In 2000-s the state farm ran bankrupt. The household and industrial buildings were dismantled. The pesticide warehouse building was completely destroyed.

In 2008 there was an inventory of obsolete pesticides. It was found that there were about 10 tons of various pesticides in poor containers including old metal drums in the site. The pesticides were located in the open air without any shed. There were granosan, phenoram, simazine, as well as an unidentified organic compounds. Pesticides were stored there until 2010.

The employees of the state farm used those pesticides in agriculture.

The project team visited the site in October, 2020. Weeds and small bushes grow around the warehouse. The size of the warehouse is 20 * 80 meters. Only the foundation and destroyed support beams remain of the warehouse building. There is a pile of soil 6-7 meters in diameter to the west side of the warehouse.

Local residents said that the pesticide residues were removed from the site in 2012, and then the area of the warehouse was leveled with a bulldozer.

The project team believes that the area of the warehouse is still contaminated with pesticides.

The area of the site is flat. The team took linear samples over 100 m sections towards the agricultural fields and towards the water tower which is within 250 from the site. The terrain of the site is flat.

Weeds and small bushes grow everywhere on the site. There are abandoned garage and boiler room near the warehouse building.
Livestock may enter to the site occasionally. Local residents set up an electric fence around the warehouse. They are afraid that the animals could be poisoned by pesticides. However, the project team couldn't get any information about poisoning of animals or people on the site. Nobody complained about it. The obsolete pesticides were stored uncovered in destroyed packages for 10 years. They were exposed to atmospheric precipitation, extreme temperatures, wind, and could be carried to the village by domestic cattle and passing vehicles. The project team took linear samples based on the relief of the site. During cleaning in 2012 the topsoil was not removed to the landfill. This soil was just moved to a nearby dump. Investigators took a soil sample from this dump. People can be exposed to inhalation of vapors and contaminated dust, possible dermal contact. Organochlorine pesticides were found in all soils samples taken at the site.

Бывший склад пестицидов расположен на территории производственной базы центрального отделения бывшего совхоза "Горский" на северной окраине с. Нахвальское Сухобузимского района Красноярского края. Село Нахвальское находится в 105 км от г. Красноярск в северо-восточном направлении, а р. Бузим в 8 км от её впадения в р. Енисей в урочище Нахвальском. Предположительно ранее на месте села находилось русло р. Енисей. Население села составляет 1771 человек. Имеется общеобразовательная школа. Глава муниципального образования Гимбал Наталья Ивановна т. (39199)3-342.

Совхоз «Горский», центральная усадьба которого до 1992 г. находилась в с. Нахвальское, обанкротился в начале 2000-годов. Хозяйственные и производственные помещения были разобраны или разрушены. Склад пестицидов был полностью разрушен. На момент инвентаризационного обследования в 2008 г., на месте склада под открытым небом находилось около 10 т. различных пестицидов в разрушенной и полуразрушенной таре, в т. ч. в металлических бочках. Ранее эти пестициды использовались в сельскохозяйственном производстве. На момент проведения исследования в октябре 2020г. склад представлял собой участок земли, заросший травой и мелким кустарником. От склада, размером 20 х 80 м, сохранились остатки фундамента, спилы опорных балок. Видимых остатков брошенных пестицидов не обнаружено. С западной стороны территории склада имеется куча грунта диаметром 6 - 7 метров.
Со слов местных жителей остатки пестицидов были вывезены в 2012 году, а территория склада выровнена бульдозером. Вероятность нахождения остатков устаревших пестицидов на месте нахождения склада и в рядом находящейся куче грунта достаточно высока. Сетевые пробы были взяты на участке нахождения бывшего склада, а линейные пробы - на отрезках по 100 м по двум направлениям - в сторону сельхозполей по микропонижению рельефа и в сторону водонапорной башни, находящейся на расстоянии 250 м от исследуемого участка. Вся территория бывшей производственной базы представляет собой заросшую травой и кустарником площадь с остатками строений (склад, гараж, котельная). Рельеф местности равнинный. На территорию где был склад, периодически заходит крупный рогатый скот местных жителей. Жителями самостоятельно установлена электроизгородь вокруг участка склада из-за имеющихся опасений отравления скота.
Установить факт отравления людей или животных не удалось. Вероятность загрязнения почвы участка, где находился склад пестицидов и возле него высока. В течении 10 лет устаревшие пестициды находились в разрушенных упаковках под открытым небом, подвергались воздействию атмосферных осадков, температурным перепадам, ветровому воздействию, могли переноситься домашним крупнорогатым скотом и проезжающим автотранспортом, т.к. через территорию бывшего склада проходит несколько грунтовых дорог. Поскольку пол в складе отсутствовал, весьма вероятно попадание пестицидов в земляное основание, поэтому земляные пробы брали на участке бывшего склада. Линейные пробы отбирались по направлению, где наиболее высока вероятность переноса пестицидов ветром и дождевыми осадками, по выраженному микропонижению рельефа. После перемещения устаревших пестицидов в место длительного хранения в 2012 году (г. Красноярск, полигон "Серебристый") верхний слой грунта не вывозился, а был перемещен в рядом находившийся отвал, с которого была отобрана сборная проба, а также проба из середины отвала на глубине 1м.
Согласно результатам проведенного химического анализа почвенных проб исследуемого участка, во всех отобранных образцах выявлено наличие пестицидов, в т. ч. хлорорганических.

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</table>
Figure 32. Map of the site RU-8544

RU-8546
Former pesticide warehouse, Nakhvalskoe Village of Sukhobuzimsky District
Figure 33. General view

Figure 34. Sampling on the site
Figure 35. Testing dig

Figure 36. Sampling on the site
Site RU-8546

Investigator Details
Vaidey Kulgin
Federal State Unitary Enterprise "Siberian Scientific and Research Institute of Engineering and Reclamation"
+7 913 937-40-31 or +7 903 244-39-69
kunen@lands.ru

This site was last updated Thu Feb 04 2011 14:22:30 GMT
Would you like to continue editing?

ISLO Status: Approved

Screening Risk Assessment

Site Name:
Former pesticide warehouse, Nyashtolok village, Sakhobuysky District

Region:
Eastern Europe, Northern Eurasia & Central Asia
Country:
Russia
State:
K

Screening Risk Assessment

Issue:  isolated site  regional problem

Key Pollutant:
Pesticides

Sub-Pollutant:
Blacksmith Index

Total population at risk:
123741

https://www.contaminatedsites.org/sites/ru-8546/
Abstract

The former pesticides warehouse is located on the lands of the former state farm "Sorsky". The state farm is located in the village of Svetlovodsky District, Krasnoyarsk Region. Only the foundation and destroyed support beams remain of the warehouse building. The obsolete pesticides were stored uncovered in destroyed packages for 10 years. They were exposed to atmospheric wind, and could be carried to the village by domestic cattle and passing vehicles. People can be exposed to inhalation of vapors and contaminated dust, possible dermal contact. Organochlorine pesticides were found in all soil samples taken at the site.
Toxic Sites Identification Program

Data Source Type:
- Investigator sampling (Lab or XRF)

Test Data Certainty:
- High

Data Source Description / Citation:
Certified laboratory "Center for environmental development and audit" Protocol #02-183

Population Estimate:
- 477

Population estimate confirmed by local authority

PART 1 Screening Risk Assessment

Sample Group ID: 1. Key Pollutant: HCH (Hexachlorocyclohexane), Test Result: 0
Sample Group ID: 1. Key Pollutant: Lindane (Hexachlorocyclohexane all forms), Test Result: 0
Sample Group ID: 1. Key Pollutant: Hexachlorobenzene (Benzene Hexachloride), Test Result: 0
Sample Group ID: 1. Key Pollutant: Other, Test Result: 0
Sample Group ID: 1. Key Pollutant: Other, Test Result: 0
Sample Group ID: 1. Key Pollutant: DDT, Test Result: 0

PART 2 Physical Description

PART 3 Release Risk

PART 4 Site Stakeholders

PART 5 Linked reports and images
Part 2: Physical Description

Location & Site Description:
The former pesticides warehouse is located on the lands of the former state farm "Gorysly". The state farm is located in Village of Sukhobuzhinsky District, Krasnoyarsk Region. The village of Sukhobuzhskoe is located 100 km northeast of Iturup Island. It is located 5 km from its confluence with the Venetsky River.
The residential buildings are within 100 meters from the site. The nearest well is within 300 meters from the site. The nearest residents of the village is 177 people. There is an elementary-school in the village.
The warehouse belonged to Gorysly state farm until 1992. In 2000 the state farm ran bankrupt. The househould and in pesticide warehouse building was completely destroyed. In 2009 there was an inventory of concrete needles. It was found that there were about 10 tons of various needles stored in the site. The needles were located in the open air without any shed. There were grassweeds, phrenoids, etc.

Size of Contaminated Area: 100 - 500 m²
Estimated depth of contamination: 5 - 10 m

Was a test pit dug to determine depth of contamination?
- Yes
- No

Is there a strong smell associated with the site attributed to contamination?
- Yes
- No

Soil Group: KASTANOZEMS, Chernozems, Phaeozems, Ummbrisol

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<tr>
<th>Clay Content</th>
<th>Silt Content</th>
<th>Sand</th>
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<tbody>
<tr>
<td>10%</td>
<td>46%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Land Use: Commercial Agricultural
Population Density: 1 per km²

List the number of people in the following categories:

- On Site
  - Live: 0
  - Work: 0

- Within 50 meters
  - Live: 0
  - Work: 0

- Within 100 meters
  - Live: 736
  - Work: 57

Total across all cate
### Toxic Site Identification Program

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<th>Answer</th>
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<td>What is it used for?</td>
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<tr>
<td>Is there evidence of a high water table or ground water?</td>
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<td>Depth of the water table</td>
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<tr>
<td>Is the site in a flood plain?</td>
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<tr>
<td>Distance to the closest river or water body downstream of the contaminated site</td>
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<tr>
<td>Distance to the closest well</td>
<td>Within 500m of contamination</td>
</tr>
<tr>
<td>Position of the contaminants relative to the slope</td>
<td>All or below ground level and slope is flat</td>
</tr>
<tr>
<td>Is this a storage facility for chemicals?</td>
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<tr>
<td>Number of container onsite</td>
<td>Other pollutant storage</td>
</tr>
<tr>
<td>Please list the primary chemicals stored at the site</td>
<td>Select one</td>
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### Toxic Site Identification Program

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### Site Stakeholders

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<th>Number of males</th>
<th>Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Natalya Krymska Gmelin</td>
<td></td>
</tr>
</tbody>
</table>

https://www.contaminatedsites.org/sites/6540/
Expected Intervention Description

Describe possible measures that could be taken to mitigate risk. Please include an estimated time frame and key activities.
Toxic Sites Identification Program

Who is Local Champion? Provide contact details:

Activities carried out to date:

Description

View Users

View my site

Add new sites

Layout:

PART 1
Screening Risk Assessment

PART 2
Physical Description

PART 3
Release Risk

PART 4
Site Stakeholders

PART 5
Linked reports and images
Example Laboratory Analysis Result for one soil sample:

Общество с ограниченной ответственностью "Центр экологических разработок и аудита"
Аккредитованная испытательная лаборатория
Юридический адрес: 660041, Красноярский край, г. Красноярск, ул. Слободской, 72а, пом. 115, тел/факс 291-34-44, E-mail: certa@int.ru
Адрес Испытательной лаборатории: 660081, Красноярский край, г. Красноярск, ул. Калинина, 44"Г", пом. 10, тел.(391) 218-08-28, E-mail: cce.lab@gmail.ru
Номер записи в Реестре аккредитованных лаб. № 3А.К1.21.АТ.01, дата внесения в Реестр аккредитованных лаб. 29.11.2016

ПРОТОКОЛ ЛАБОРАТОРНЫХ ИССЛЕДОВАНИЙ
№ 02 -182 от 2 декабря 2020 г.

Наименование заявителя: Кузинин Василий Дмитриевич
Юридический адрес: г. Красноярск, ул. Краснокамская, д. 32
Наименование объекта (организации), где произведен отбор: совхоз "Горский"
Адрес: Красноярский край, Сухобузимский район, с. Нахватское
Наименование образца: почва
Количество образца: 250 г
Дата и время отбора: 18.10.2020
Отбор произведен закапчич. аст отбора: 18.10.2020
НД на методы отбора: ГОСТ 17.44-02-2017 "Методы отбора и подготовки проб для химического, бактериологического, геомикологического анализа"
Основание для отбора: договор № ИУПРГУА.64-2020
При отборе присутствовали: —
Условия доставки соблюдены
Доставлен в ИЛ 3.12.20 13:00
Дополнительные сведения: Хозяйственная база (разрушенная) бывшего совхоза "Горский", территория бывшего склада химикатов. Проба 00.11, глубина отбора 1 м.
Ответственность за отбор, доставку проб и предоставленную информацию несет заказчик. Результаты выданы на предсказанный образец.
Нормативные документы, регламентирующие значения характеристик и показателей: —
Код образца: 02 -182-20

Наименование показателей, ед. измерения | Результаты испытаний | НД на методы испытаний
--- | --- | ---
4.4-ДДТ, мг/кг | 0,0030 ±0,0012 | МУ 1966-77 Методической указания на определение остаточных количеств полходоцких загрязнений в почвенных образцах
альфа-ГХЭП, мг/кг | 0,0008 ±0,0004 | МУ 1966-77 Методической указания на определение остаточных количеств полходоцких загрязнений в почвенных образцах
гамма-ГХЭП (липаза), мг/кг | 0,00022 ±0,00012 | МУ 1966-77 Методической указания на определение остаточных количеств полходоцких загрязнений в почвенных образцах
Гексахлорбензина, мг/кг | <0,0001 | МУ 1966-77 Методической указания на определение остаточных количеств полходоцких загрязнений в почвенных образцах
ДДД, мг/кг | 0,00049 ±0,00022 | МУ 1966-77 Методической указания на определение остаточных количеств полходоцких загрязнений в почвенных образцах
ДДЭ, мг/кг | 0,00055 ±0,00025 | МУ 1966-77 Методической указания на определение остаточных количеств полходоцких загрязнений в почвенных образцах

Протокол подготовил: Л.Ф. Дмитриева
М.П. Начальник ИЛ: О.С. Оффан

Протокол составлен в 2 экземплярах

Протокол не может быть частично воспроизведен без письменного разрешения начальника ИЛ Облесение количество статей 1. Страница 1