Assessment Report

Complaint Regarding the Lukoil Overseas Project (Karachaganak Oil and Gas Field) Burlinsky District, Western Kazakhstan Oblast, Kazakhstan

April 15, 2005

Office of the Compliance Advisor/Ombudsman
International Finance Corporation and
Multilateral Investment Guarantee Agency

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List of Acronyms

AMR	Annual Monitoring Report
BG	British Gas
CA	Crude Accountability
CAO	Office of the Compliance Advisor/Ombudsman
EMP	Environmental Monitoring Plan
ESIA	Environmental and Social Impact Assessment
GoK	Government of Kazakhstan
IFC	International Finance Corporation
KIO	Karachaganak Integrated Organization
KOGCF	Karachaganak Oil and Gas Condensate Field
KPO	Karachaganak Petroleum Operation b.v.
KZT	Kazakhstan Tenge (currency)
MIGA	Multilateral Investment Guarantee Agency
MoH	Ministry of Health
SPZ	Sanitary Protection Zone

1. INTRODUCTION

The Office of Compliance Advisor/Ombudsman (CAO) is the independent accountability mechanism for the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA). The CAO reports directly to the President of the World Bank Group, and its mandate is to assist parties in addressing complaints raised by people affected by projects. CAO acts in a manner that is fair, objective, and constructive and to enhance the social and environmental outcomes of projects in which IFC and MIGA play a role. In the first instance, complaints are managed through the CAO's Ombudsman function. The purpose of this assessment is to:

1. Provide a neutral assessment of the facts gathered during the assessment that are associated with questions raised in the complaint;
2. Propose appropriate steps to assist parties to achieve resolution of this complaint.

This assessment is not a formal compliance audit of IFC's or its partner's adherence to established policies. Such an audit, as specified by CAO's Operational Guidelines, could occur if deemed necessary, at a later stage. The assessment report presents facts, gathered by the CAO during assessment about activities that relate to and address concerns raised in the complaint.

CAO received a complaint on 1 October 2004 regarding the Lukoil Overseas Project, an International Finance Corporation (IFC) investment in the Karachaganak Oil and Gas Condensate Field (KOGCF) in Western Kazakhstan. Lukoil is a member of an international consortium, the Karachaganak Petroleum Operation b.v. (KPO) that has developed and operates the KOGCF. Individuals from the village of Berezovka, located approximately 5 kilometers from the Karachaganak production facilities, submitted the complaint, dated 22 August 2004. The CAO acknowledged the complaint on 4 October 2004, appraised it and accepted it on 8 October 2004. The Complainants have requested that their names remain confidential.

The complaint raises three specific questions:

- **Does the proximity of Berezovka to the KOGCF mean that its inhabitants are exposed to adverse health impacts?**
- **Have the operations of KOGCF caused deteriorating economic circumstances for the residents of Berezovka?**
- **Was the reduction in the Sanitary Protection Zone justified?**

A desk review of pertinent IFC and project documents was conducted during October and November 2004. The CAO met with the IFC project team to discuss the project and the substance of the complaint on 9 November 2004; CAO staff undertook a field mission to Kazakhstan from 7 through 15 December 2004, where they assessed the allegations contained in the complaint, and met with the Complainants and project sponsors.

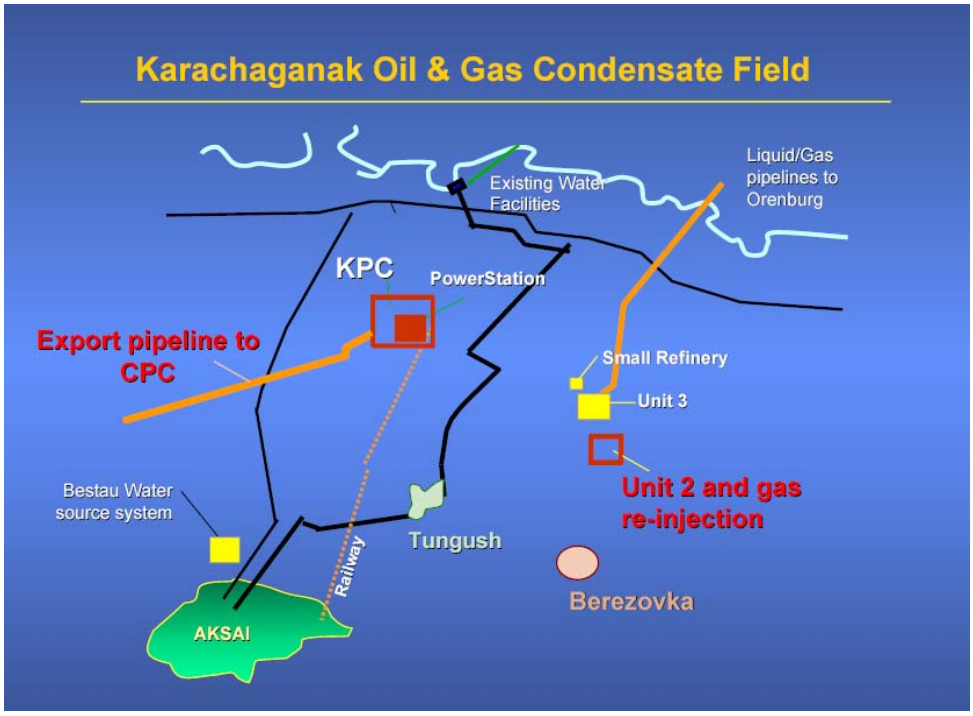
2. BACKGROUND

KOGCF is located in the Burlinsky district of the Western Kazakhstan Oblast of Kazakhstan, near the town of Aksai. The project represents the second phase (Phase 2) of the Initial Program of development of the KOGCF, one of the world's largest gas-oil-condensate fields; the field's total

proven oil reserves are 1.9 billion barrels, and 13 trillion cubic feet of gas.[1] The field currently produces about 220,000 barrels per day (bbl/d) of oil, and 1.3 billion cubic feet per day (BCF/d) of gas. The development program commenced in the last quarter of 2000.

Project development included: 1) deepening and working over of 85 wells; 2) refurbishing of the existing primary separation facility, and construction of an additional facility; 3) construction of a gas/condensate separation facility and installation of gas injection compressors; 4) construction of a 635 km liquids pipeline to connect to the Caspian Pipeline Consortium (CPC) pipeline to export the field's liquids; 5) environmental remediation work at the existing site (due to Soviet-era contamination); and 6) construction of a web of infield pipelines, roads and related infrastructure, including a 120 MW power plant to supply the project and the local community with electricity. Construction activities were completed by the end of 2004.

Figure 1. Diagram of Karachaganak Oil and Gas Field



Source: IFC[2]

The sponsor of the IFC-funded project is Lukoil JSC of Russia, which has a 15% stake in the Karachaganak field through its subsidiary Lukoil Overseas Karachaganak B.V. The project was developed by an international consortium originally called the Karachaganak Integrated Organization (KIO), but now called Karachaganak Petroleum Operation (KPO). Consortium members include British Gas (BG) with a 32.5% stake, ENI-Agip of Italy (32.5%), ChevronTexaco (20%), and Lukoil (15%). BG and ENI-Agip are the field operators.

The project has been classified as a Category A project. The total cost of the Phase 2 Initial Program is US$3.7 billion. Lukoil's share of project costs is US$575 million. IFC's financing

[1] The natural gas in the Karachaganak field is sour gas, referring to the high levels of sulfur it contains, in the form of 4.0% to 4.3% hydrogen sulphide (H_2S).
[2] This is a diagram and it is not to scale. See Appendix 6 for a scale map which shows the villages surrounding the KOGCF.

package totals US$150 million; it includes US$75 million for IFC's own account, and US$75 million in syndications, referred to as a B loan.

In order to protect populations adjacent to industrial areas, where emissions and other environmental impacts may occur, Kazakhstan has historically employed the use of artificial zones of protection, known as a Sanitary Protection Zone (SPZ). These zones allow for emissions within the SPZ, but restrict any new activity occurring within the zone. The decision as to whether existing human activities and residential areas are accommodated in situ or required to be resettled is made on a case-by-case basis. The size of the SPZ is determined as appropriate in each case. The purpose of a SPZ is to allow for emissions from industry while at the same time limiting exposure to the general public.

There are several villages which are located in the vicinity of the KOCGF; Table 1 lists these villages, along with their ethnic makeup, population and distance from the SPZ.

Table 1: Villages Surrounding the KOCGF.

Village	Total Population	Distance from SPZ (in kilometers)	Ethnicity
Berezovka	1,341	0.93	50% Russian; 50% Kazakh
Bestau	160	2.00	100% Kazakh
Zhanatalap	454	2.60	100% Kazakh
Karachaganak	219	2.60	70% Russian; 30% Kazakh
Dimitrova	194	4.40	60% Russian; 40% Kazakh
Zharsuat	1,171	4.26	30% Russian; 50% Kazakh; 20% other
Uzpenovka/Karakemir	583	5.37	100% Kazakh
Priuralni	1,357	6.90	40% Russian; 60% Kazakh

Source: Social Baseline Study, October 2003.

3. CAO ASSESSMENT

Complaint Allegation I: Are emissions from the KPO field responsible for adverse health impacts experienced by the Berezovka population?

The Complainants contend that the proximity of Berezovka to the KOGCF and the emissions from its facilities, have caused residents to suffer adverse health effects including disorders of the upper respiratory tract, cardiovascular system, allergies and cognitive difficulties including memory loss. Supported by Crude Accountability (CA)–a Washington, DC-based NGO – the Complainants maintain that the levels of hydrocarbon emissions to air by KPO exceed the permissible standards identified by various U.S. government environmental agencies—Environmental Protection Agency (EPA), U.S. Occupational Safety and Health Association (OSHA) and others—beyond which human health is compromised or damaged. In addition, the Complainants believe that KPO is responsible for contamination of drinking water.

IFC standards[3] require measurement of point-source monitoring of air quality – i.e. air quality at the point of emission. KPO must also comply with Kazakhstan regulatory requirements for ambient air monitoring – i.e. air quality in the field as a whole and in surrounding villages. It is understood by the CAO that KPO has increased in 2002 its ambient pollution monitoring capacity by purchasing four mobile monitoring vehicles that can move to different sites to test emissions. Pollution levels are monitored inside every oil and gas field facility (at the source), inside the field, and in each village, every six hours. KPO air emissions monitoring data, made public on a weekly and monthly basis in all area villages and local newspapers distributed free of charge, show that air emissions do not exceed Kazakh air emissions standards in village measuring points. The Complainants have expressed a lack of trust in the reliability of these results. KPO applies annually for emissions license to the local environmental regulator, which is given based on the planned level of field activities.

However, when intercasing pressure (ICP) needs to be relieved by burning gas off of a particular well, or if necessary, from a plant, KPO exceeds the planned level of emission in the field. In those instances, KPO must pay a fine to the local Ministry of Health (MoH); based on the amount of excess emissions it produces[4]. These burn offs are done for field safety, to remove potentially explosive levels of gas from wells or facility equipment, thus preventing blowouts. During June, July and August 2004, according to IFC, the project did not exceed permissible levels at emission measuring, although the project did exceed KPO's *planned* levels of emissions for this period.

IFC, in completing the project's Phase 2 development, found that KPO has successfully reduced emissions through a variety of upgraded equipment which uses cleaner technology than had been employed under previous management, i.e. Gazprom (for details see Appendix 4.) The sponsor has also removed significant amounts of drill cuttings, cleaned up drilling pits, and disposed of abandoned oilrigs.

As KPO indicated to IFC, hydrocarbon flaring is carried out in accordance with the environmental and health protection measures required by the GoK Law on Environmental Protection GOST 12.1.005-88. To prevent atmospheric pollution of populated areas in excess of Maximum Permissible Concentrations (MPC), well or flow line-flaring operations producing atmospheric emissions may only commence after permission is received from KPO's Environmental Control

[3] IFC's Pollution Prevention and Abatement Handbook, 1998. http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1999/06/03/000094946_99040905052283/Rendered/PDF/multi0page.pdf

[4] See Appendix 4.

Group which ensures compliance with the Kazakh regulator's annual flaring permission. All permitted flares are monitored at a range of distances downwind to ensure that emissions meet MPC limits. (See Appendix 4, Para. 3).

As referred to in the project Environmental and Social Impact Assessment (ESIA) KPO commissioned a baseline health study in and around the field in 2001 (March 2001 Kenesary Study).[5] On the basis of the study results, KPO indicated that "KGOCF environmental status is currently wholly satisfactory when considering the impact that the field has on the health conditions."[6] Overall, the Kenesary study found that "concentrations of harmful chemicals in soil, drinking water and foodstuff [sic] in the surveyed settlements do not exceed the established hygienic standards."[7] The study only includes a comparison of the health situation of field villages with another village not in the vicinity of the field. This report was not publicly released.

The GoK Ministry of Health (MoH) commissioned a health study and a SPZ Size Justification Study in mid-2002 (2002 Kenesary Study); a third party review of this study was commissioned by KPO.[8] In addition, the GoK Western Kazakhstan Oblast Health Committee conducted a medical study in Berezovka from 11 to 17 May 2004,[9] a two-page summary of which was shared with CAO and CA.

The full text of the 2002 Kenesary Study was not made public. According to KPO, the study found no link between ambient pollution and the health status of residents of Berezovka. KPO's view is that Berezovka's current community health situation results from Kazakhstan's overall social and economic deterioration following the dissolution of the Soviet Union, as well as inadequately-maintained Soviet-era infrastructure, in particular water supply, sewage treatment and disposal systems. According to the 2002 Kenesary Study, human health conditions in villages surrounding the field are, on average, better than conditions in villages in the south of the Western Kazakhstan Oblast; it is considered that field employment at KPO—linked to higher income and better nutrition—benefited "field" villagers more so than those who live farther away from the KOGCF.

With respect to contamination of water supplies, the project maintains concrete-lined polygons for storage of liquid and hazardous waste as per its waste management system. This should mean that no contaminants escape into the surrounding surface or ground water. KPO performs ground and surface water testing within the field and 12 wells within the village areas were also tested and analyzed. According to KPO confidential reports, which were not seen by CAO, the results do not indicate contamination resulting from the field activities. (See Appendix 4, Para. 2)

Crude Accountability (CA), together with the Complainants, sponsored a health survey in 2002, and has recently (as of December 2004) undertaken blood-testing work in Berezovka[10]. According to CA,[11] the door-to-door survey of 400 households was taken in Berezovka by the Complainants. Their results stated that there were widespread muscular and skeletal problems, memory loss,

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[5] KPO commissioned study by Centre of Preventative Medicine "Kenesary," Kazakh State Medical University, March 2001. This work includes a comparison with the "control" settlement of Alexandrovka within the Oblast but distant (50km) from the field's influence.
[6] ESIA, paragraph 3.2.2.
[7] Ibid.
[8] In this study, two US public health experts with knowledge of the oil and gas industry and community health were hired to provide an independent second opinion to the 2002 Kenesary Study.
[9] The study involved 14 doctors and used interviews, general as well as specialist examination of 62% of Berezovka population (843 people), including 352 children and 491 adults. Two hundred fifteen people had general examinations, but not examination by specialists.
[10] In December 2004, CA reported that some complainants and other villagers were harassed by government officials and police; this occurred during CA's collection of blood samples at a private clinic in Aksai. See CA's website for an account of the incident, http://www.crudeaccountability.org/eng/respublika_01_en.html
[11] See http://www.crudeaccountability.org/eng/environmental_health_en.html for details.

vision problems, upper respiratory difficulties, and skin ailments. In addition to conducting the health survey, CA has purchased and installed air monitoring equipment in Berezovka and trained villagers to measure ambient air quality. CA indicated that the air samples were taken in accordance with the EPA-approved "Bucket Brigade" methodology, which uses five-gallon plastic buckets to draw air into a sterile, chemically neutral bag. CA concludes that air monitoring shows "dangerous levels" of toxic chemicals in the ambient air, including hydrogen sulfide, carbon disulfide, toluene, methylene chloride, and acrylonitrile.[12] In a letter to World Bank President James Wolfensohn dated January 31, 2005, CA listed specific concerns related to project monitoring; CA stressed that "the project points to the need for IFC to acquire more independent monitoring of its projects and not simply rely on monitoring data provided by its clients. Karachaganak also demonstrates the need for the IFC to increase transparency and citizen participation in project monitoring."

CAO Findings

Both the GoK and KPO have carried out a number of health studies that should address the concerns of the Complainants. It is difficult to understand why the full results of these studies have not been made available to the complainants in a way that is credible. The lack of disclosure contributes to mistrust and misconceptions among some residents of Berezovka, including the Complainants, regarding KOGCF's emissions levels and health impacts. The CAO would like to more definitively address the health impacts raised in the complaint; however neither KPO nor CA has shared the full results of their studies—nor the methodologies employed—with our office in detail. Without access to detailed health data, the CAO is not able to provide any meaningful conclusions about possible links between the health problems of Berezovka residents, KOGCF emissions, and proximity of the village to KOGCF.

Although KPO has been found by IFC as operating in compliance with IFC standards and claims to adhere to international best practices, there is a legacy of poor environmental standards and practices from previous field owners.[13] There is also a lack of a well-documented baseline of the health situation[14] before the tenure of the current management, making the task of confirming any impacts of KPO's operations on health very difficult. It has not been possible for the CAO to differentiate potential impacts of current oil and gas field operations from the effects of poorly maintained municipal infrastructure, contaminated water supplies, waste disposal practices, and other pre-existing environmental degradation that may also contribute to the poor health of villagers.

With the data currently available to the CAO, and given the widespread decline in health in Kazakhstan in general and the Western part of the country in particular (See Appendix 2), the CAO cannot elaborate on possible effects the KOGCF might have on the health of Berezovka residents. In addition there are many lifestyle factors—including alcohol consumption, poor diet, smoking, and access to medical care—as well as genetics, which should be taken into consideration when addressing Berezovka's community health concerns.

[12] See Crude Accountability's Air Monitoring webpage: http://www.crudeaccountability.org/docs/data_on_toxins.pdf
[13] KPO took over the field in 1995. Gazprom managed it from 1979 until 1991, when Kazakhs took over after declaration of independence. The field's production was in decline from 1991 until 1995.
[14] IFC does not require baseline health studies as part of the ESIA and did not require one for this project.

CAO Recommendations

1. CAO recommends that KPO and the Complainants meet to establish protocols that improve the understanding and credibility of the independent studies that have so far been commissioned – by the government, KPO and Crude Accountability/Complainants. KPO should publicly release its independent assessment of the 2002 Kenesary study in full to improve its credibility and build public trust in its findings. The complainants should be given comprehensive access to the studies so far undertaken by each party, including CA's health survey (including blood samples testing), the Western Kazakhstan Oblast 2002 Kenesary Study and the May 2004 Medical Survey of Berezovka) in order to promote open and transparent consideration of their findings.

2. KPO should continue the process of appointing external independent reviewers for environmental health aspects of its project, and its goal should be that their reports are made public. KPO should consider making the selection process for these reviewers more open and transparent so as to ensure their credibility and build public trust in their findings. KPO and the project-affected people should consider working together to identify appropriate criteria for the selection of these independent experts. If this is possible, these experts should be asked to review both KPO and CA studies that have been released in 2004 since there are apparently significant disparities between them.

3. KPO should revise its procedures for disclosures of environmental information to the public ensuring that it has taken into account public concerns relating to the materiality of information released. KPO should be regularly consulting with communities and other affected parties about their concerns and ensuring that environmental & social monitoring activities are appropriate to resolving issues raised. KPO should operate on a presumption in favor of disclosure with respect to environmental monitoring information so that it effectively quells the current level of rumor and potential misinformation that exists in the region.

CAO is willing to participate in the design and facilitation of these protocols if desired by the parties.

Complaint Allegation II: Complainants claim that the KOGCF project led to a deteriorating economic situation for Berezovka residents

The Complainants expressed their concerns that the project led to a serious deterioration of livelihoods of the residents of Berezovka. They believe that the KOGCF does not comply with the IFC's mandate to reduce poverty as it fails to provide economic and social development benefits for the communities around the field and along the export pipeline.

Data collected by KPO's consultants during the preparation of the social baseline study in mid-2003 indicate that the Berezovka residents' standard of living is higher than the standard of living of three of eight other "field" communities (Bestau, Karachaganak, and Zhanatalap), and about the same as two other villages (Dimitrovo and Uspenovka). Only two villages (Priuralni and Zharsuat) are better off than Berezovka. CAO confirmed the findings of the ESIA (March 2002) that indicated that the community of Berezovka (population 1,340) has piped water, gas and electricity, a health clinic, primary and secondary schools, a local government (Akim) office, a library, shops, bus service, and a community center (House of Culture).

KPO has an annual budget of US$10 million for Community Development and Social Programs for the entire Western Kazakhstan Oblast (the so-called Social and Infrastructure Expenditure). Projects are subject to feasibility and design studies before they are short-listed for endorsement by the Joint Operating Committee, represented by KazMunaiGaz (Kazakhstan's state-owned oil

and Gas Company) and KPO Partner companies. The local authority (Akimat) is in charge of the selection process and the companies have limited influence in practice. KPO is tasked with execution (managing the bidding and supervising the contractor until the job is done properly, etc.) These programs are handed over to the Kazakh authorities once completed, with KPO covering operational cost for two years. Seventy-four million dollars has been invested from 1998 through 2003, and in some years funds were advanced against future spending (US$74 million vs. US$60 million over those six years). Thirteen projects have been identified for 2005.

Despite the fact that the Oblast authorities have a final say in selection of such projects, KPO positively influenced the allocation of US$3 million of the past two years' Social and Infrastructure Expenditures towards village improvement projects identified in the social baseline study.

In addition, KPO has its own fund (about US$250,000 – 300,000) for smaller scale local communities' cultural and recreational activities (Sponsorship Fund), which is operated entirely at the discretion of KPO.

CAO Findings

The village of Berezovka has benefited from KPO community and social funds, and from the project directly; according to the social baseline study of the eight villages surrounding the KOGCF, Berezovka has received more KPO assistance than any other of the "field" villages, including:

- The highest number of residents employed by KPO (134 individuals vs. the average of 48);[15]
- Paving of the main village road;[16]
- Upgrading of school facilities;
- Provision of new medical equipment for the health clinic (in 2004); and
- Repair of the village water supply system, under way in 2005.

Both primary and secondary data show that there is no evidence of economic deterioration of Berezovka resulting from the KPO operations, nor is there an indication of the project's adverse impacts on social or human development. Improvements in the socio-economic situation of the village (e.g. road repairs, drinking water quality) are evident as compared to the pre-project condition.

There is, however, perceived deterioration in the broader socio-economic conditions in Berezovka. This might be attributed to the collapse in state subsidies (free transportation, health services, subsidized food and utilities) following the dissolution of the Soviet Union. The decline in quality and affordability of social services and the deterioration of basic infrastructure in Berezovka (including water supply) is common in the entire area and in Kazakhstan at large. It is not currently possible to differentiate this broader trend from the impact of KOGCF operations.

Discussions by CAO staff in Berezovka with the Complainants and other villagers revealed that the Complainants' expectation of an improved standard of living rests mainly on resettlement. The resettlement of Tungush provided villagers with considerable economic benefits including free

[15] According to the Complainants, only twelve villagers are employed by KPO.
[16] According to the Complainants, the paved road through Berezovka was built during the Soviet period. Approximately 7 km of the road, which had not been completed, was filled in with sand using funds from the sub district government's budget.

housing and monetary compensation. The Complainants believe that Berezovka has been impacted by the project similarly to Tungush; thus they perceive their eligibility for resettlement as legitimate and imperative to their well being.

In addition to their expectations for resettlement, Complainants seem to have relatively high expectations with regard to potential project benefits, including (a) more jobs; (b) further improvement of the local school; (c) provision of free health care; and (d) adequate solid waste management.

Based on consultations with the Complainants, and despite the interactions between residents of impacted villages with KPO's Community Relations Officer and with other relevant Environment and Health Department staff, the Complainants appear to have little information about actual and intended benefits of KPO current and future social programs. KPO's contributions to the Oblast's Community Development and Social Programs lack specificity and focus, most likely because of the different priorities of the government and KPO.

Although the CAO is aware that community interactions between KPO and Berezovka have been described by IFC's independent monitoring as frequent and comprehensive, there are indications that communication on both sides has been reactive and incomplete, lacking coherence in format, content and direction. CAO acknowledges that KPO's Public Relations department was reorganized in January 2004 and that the new structure is expected to create some consolidation. IFC has indicated that it had recommended that the department continue to be strengthened. IFC also informed CAO that both the Community Liaison Officer and their job description be changed, giving this role a much higher profile in the villages around the field as well as increasing the number of visits.

Recognizing acute sensitivities, KPO's contributions to the local authorities to select and design community development projects would benefit from better due diligence. Community programs supported by the project have not typically used participatory approaches or capacity-building of community-based institutions as an effective strategy for community development. KPO has shown some initiative in this regard by aligning its priorities with the social baseline study, and expanding this initiative would be merited.

In addition, the monitoring program of the results of KPOs contribution to social programs could be improved in co-ordination with the Akim's office.

CAO Recommendations

COA recommends that the selection, implementation and monitoring of KPO's contributions to Social and Infrastructure Expenditure should be strengthened. KPO should work together with the local government to:

- focus on improved public consultation and participation in the design of programs, including making better use of the ESIA and social baseline work that has been completed;
- monitor and evaluate the outcome of social investment spending; and
- report to the public on the effectiveness of these investments.
- ensure easy public access to redress from project and non-project grievance mechanisms.

Complaint Allegation III: Was the reduction in the Sanitary Protection Zone justified?

The Sanitary Protection Zone (SPZ) is a roughly circular area extending out up to 5 km from an industrial facility, or in the case of KOGCF, field border; an SPZ is mandated by the Government of Kazakhstan (GoK) environmental law for all industrial installations. The local Akim's office reduced the Sanitary Protection Zone (SPZ) applied in the case of KOGCF (from 5 km to 3 km). Complainants believe that this action was influenced by KPO in order to preclude the necessity of resettling the residents of Berezovka, which is partly located within the SPZ.

The SPZ designation, while invoked under Kazakh environmental law for all industrial facilities, can vary in size, based on the technology employed in the particular industrial development. The SPZ originally designated for the Karachaganak field was 5 km; this was based on Kazakh legislation that mandates a 5 km SPZ for gas fields if hydrogen sulfide (H_2S) concentrations in the gas are over 2% (Karachaganak H_2S gas concentrations are from 4% to 4.3%). However, in December 2002, the SPZ was reduced to 3 km, which included a 1.5 km KPZ plus an additional 1.5 km "no encroachment" zone. The SPZ was reduced because, according to Kazakh law, if a field emits less than 0.5 tons per day (T/d) H_2S and has a low content of volatile hydrocarbons, its zone can be reduced to a minimum of 1 km. The decision regarding the size of the SPZ for large industrial extraction complexes in Kazakhstan is based on calculations of the pollutant atmospheric dispersions, of maximal accidents and emergencies, as agreed by the Kazakhstan's chief sanitary inspector. The northern section of the village of Berezovka was within the 5 km SPZ but, according to the ESIA, will not be considered part of the Field SPZ, "provided that new drilling does not occur in the territory near Berezovka settlement."

The Complainants base their request for resettlement on the fact that Berezovka is located in the original SPZ. Another village which had been located within the original SPZ, Tungush, had been resettled by the GoK using funds borrowed from KPO against future oil and gas royalties. The Complainants contend that since Berezovka lies within the original SPZ, as did Tungush, they should be relocated and compensated by KPO for their health problems. They also cite a letter (dated 29 May 2002) from an official of the Ministry of Natural Resources and Environmental Protection to the village residents, endorsing their eligibility to be resettled. This letter confirmed that Tungush and Berezovka are located within the SPZ, were characterized by an adverse environmental situation, and that both villages should be relocated. It is unclear whether the official who issued this letter had the authority to make this assertion.

Tungush had first petitioned for resettlement over 14 years ago, to the then Soviet Government. Tungush residents had reiterated their willingness to relocate with the assistance of KPO and the Western Kazakhstan Oblast. The government approved this request and asked KPO to implement it. As a result, KPO has become implicated in the resettlement although it was not responsible for it. The Tungush resettlement was carried out by KPO 27 May 2003. KPO has indicated that although IFC guidelines on resettlement are not technically applicable (as this was a voluntary resettlement), the relocation of Tungush residents was carried out in accordance with Kazakh law and, wherever possible, following IFC Guidelines on resettlement, applying those guidelines as best practice. Most villagers were settled in a single large apartment block in Uralsk, 15 families went to Aksai and others went to Aktube.

KPO undertakes point source monitoring of wells and other installations, to anticipate and prevent incidents rather than depending on the reactivity that the designation of an at-risk zone such as an SPZ assumes. In Kazakhstan, the SPZ allows for air emissions within the defined zone, but restricts new activity in the zone. The decision as to whether current activities and residential areas within the SPZ could be left in place is made on a case-by-case basis.

KPO indicated that because of its new point-source monitoring technology,[17] the GoK law allows for the reduction in size of the SPZ from 5 km to 1.5 km, plus a 1.5 km "no-encroachment" zone to make an effective SPZ of 3 km. This voluntary "no-encroachment" zone aims at minimizing future problems, providing additional protection against new settlements near field facilities, and securing space in case of future oil- or gas field expansion. In early 2002, following a meeting between KPO and the MoH, a process was established to allow for the size of the SPZ to be reviewed and adjusted; the process entailed an SPZ Size Justification study (2002 Kenesary Study), a MoH led health study, and two town hall meetings with Berezovka villagers[18]. The decision to reduce the SPZ was made on 24 December 2002 by the MoH of Kazakhstan.

A meeting held in the village on 4 July 2003 by Kazakh local authorities led to a decision supported by the villagers not to resettle but to opt for village improvements. The Complainants, however, have questioned the information provided for the meeting, and indicated that some residents felt that they were manipulated by the lack of transparency. The complainants conceded that not everyone in Berezovka favors resettlement: it depends on an individual's age and preference for community-based resettlement or individual cash compensation. The CAO was unable to ascertain what proportion of the village seeks resettlement.

CAO Findings

The Complainants see the Tungush resettlement as a precedent and expect KPO to take responsibility for the fact that they have not been resettled (see Appendix 5 for resettlement timeline). There was no technical requirement for the Tangush resettlement as a result of the project's activities but KPO has become implicated as a result of a request to implement a resettlement plan by the government.

The lack of public disclosure over the size justification studies is not helpful to resolving the concerns raised by complainants. Important questions have been raised about the rationale for revising the SPZ and whether additional risks to inhabitants—such as from the perspective of disaster management or release of other volatile hydrocarbons—have been taken into account.

CAO Recommendations

KPO should implement a series of public meetings and develop targeted information to clarify the following issues:

- The history and rationale of decisions behind the SPZ including all of the factors that have been taken into account with respect to this decision; and
- KPO's role in the Tungush resettlement;

Wherever appropriate, these meetings should involve the government or other relevant parties as well as the complainants. KPO should work to ensure that there is clarity over the roles and responsibilities of the key parties with respect to changes in the SPZ and resettlement, and that, through discussion, it is possible to achieve written agreements that an understanding on these roles and responsibilities has been reached.

[17] Emissions are reduced before they are released.
[18] It is unclear to CAO what the dates of these meetings were.

Appendix 1: Complaint

(Original in Russian)

KARACHAGANAK COMPLAINT

The basis of our complaint is the following: “The Development and Operation of the KOGCF.”

A project sponsor, Lukoil, is one of the shareholders of KPO b.v. [Karachaganak Petroleum Operating b.v.].

Our interests have been, and could be, affected by the following social and environmental consequences: as a result of the implementation of the KOGCF with the financial backing of the IFC, we and other residents of the village of Berezovka have experienced adverse health effects from the field: 1) disorders of the upper respiratory tract, the cardiovascular system, allergies, etc. 2) a deterioration in the quality of drinking water from underground sources; 3) the issue of resettlement of Berezovka was dropped from the agenda, despite previous decisions by the Government of Kazakhstan to include Berezovka in the SPZ.

5. [*Sic*] To resolve these issues, we took the following actions:

1) A house-by-house survey of residents regarding the state of their health in connection with the activities of the KOGCF

2. A written appeal with the signatures of more than 300 residents to V. Ya. Zemlyanov, a member of the Majilis of the RK Parliament; K. Kusherbayev, the akim of Western Kazakhstan Oblast; and RK Prime Minister D. Akhmetov.

3. Publication in the news media of letters summarizing the environmental problems of the residents of Berezovka.

4. A meeting with an executive director of the IFC and the World Bank.

5. A meeting with Senator John McCain.

6. The contact person at the IFC is Sabina Cosic.

7. To resolve these issues, we have kept in contact with the following people: HSE Director Jack Hinton; Sean Brown [sp?]; Antonina Prokhorova; M. S. Shunshaliyev, a member of the Oblast maslikhat [legislature]; S. B. Yerkebayev, akim of Burlinsky Raion; representatives of the U.S. State Department Eileen Wickstrom, the international NGO Human Rights Watch, the NGO Amnesty International; the NGO Crude Accountability; independent health and environmental experts Janette Sherman and Linda King; the NGO Green Salvation and the NGO in Atyrau called Tan.

9. [*Sic*] We expect the following decision to be issued regarding this complaint: the residents of the village of Berezovka are to be relocated to an ecologically clean zone.

10. Since we know the mission of the IFC is to fight poverty, we believe that the activities of the IFC-financed KOGCF project cause deterioration in the economic situation of the residents of Berezovka, who do not have a chance to lead a proper existence.

Appendix 2: Health and Environmental Indicators

- The average rate of respiratory diseases and infectious and parasitic diseases is higher in Kazakhstan than the European average.[19]

- Trends in mortality due to cardiovascular diseases are the same as in most other CIS states, i.e. they have risen sharply since 1992.[20]

- Diet imbalances are reflected in insufficient consumption of animal protein, and a predominance of saturated fats among fats, a risk factor for developing heart disease. Other diet problems include insufficient consumption of vitamins A and C, and iron.[21]

- Iron and iodine deficiencies threaten the health of mothers and children; 36% of children under five years old, and all women between the ages of 15-49 suffer some degree of anemia. [22] There is also a high level of thyroid deficiencies.[23]

- Life expectancy at birth has fallen. As of 2002 it is 58.7 for males, and 68.9 for females, the lowest for any industrialized country except for the Russian Federation.[24] In 1989 life expectancy for Kazakh men averaged 63.9, and 73.1 for females.[25]

- Rates of heavy and/or frequent alcohol use and smoking are very high among middle-aged Kazakh men; rates among women are lower but still significant. [26]

- Radioactive and/or toxic chemical sites associated with former defense industries and test ranges throughout the country pose health risks for humans and animals.[27]

- Annually more than 200 million cubic meters of polluted wastewater are discharged into surface reservoirs. Over 3,000 sources of water pollution have been identified.[28]

- There is widespread soil pollution from the overuse of agricultural chemicals and salination from poor infrastructure and wasteful irrigation practices.[29]

- The total area occupied by oil pollution in West Kazakhstan forms 194 thousand hectares, and the volume of spilled oil adds up to more than 5 million tons.[30]

- Rates of infant mortality and overall mortality rose in the 1990's, caused by the deterioration of the public health system.[31]

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[19] World Health Organization. 1999. Highlights on Health in Kazakhstan.
[20] Ibid.
[21] Ibid.
[22] United Nations International Children's Fund (UNICEF). 2003. at a glance: Kazakhstan.
[23] World Health Organization. 1999.
[24] World Health Organization. 2002. WHO Statistical Information System (WHOSIS), Core Health Indicators.
[25] Cockerhan, W.C., B.P. Hinote, P. Abbott and C. Haerpfer. Health lifestyles in central Asia: the case of Kazakhstan and Kyrgyzstan. Social Science & Medicine. 59 (2004):1409-1421.
[26] Ibid.
[27] United Nations Environment Program. 2003. Profile of Kazakhstan.
[28] Ibid.
[29] Ibid.
[30] Ibid.
[31] Country Study & Guide. 2004. Kazkhstan. Available online: www.allrefer.com

- The highest overall rates for anemia are in the Western Oblasts.[32]

- Problems of poor sanitation and contaminated water (salinity, toxins and bacteria) have increased in both urban and rural areas. Water filtration and purification systems have broken down in many areas, in rural areas, about half the water supply no longer works.[33]

- Kazakhstan has very high rates of pulmonary tuberculosis; the incidence was 91.4 cases per 100,000 population (1997), compared to 67.4 in other CIS states, and 13.2 in the EU.[34]

[32] National Institute of Nutrition, Academy of Preventive Medicine of Kazakstan and Macro International, Inc. 1996. Kazakstan Demographic and Health Survey 1995.
[33] European Observatory on Health Care Systems. 1999. Health Care Systems in Transition: Kazakhstan. Copenhagen: WHO Regional Office for Europe.
[34] Ibid.

Appendix 3: **CAO Methodology**

Investigation of the Complaint was conducted by CAO staff via: (i) a desk review of project relevant environmental, health and safety, and socioeconomic data provided by the IFC in November 2004; (ii) consultations with the IFC Project Team in Washington, DC November 2004; (iii) and a field visit to Kazakhstan in December 2004, which included meetings with KPO staff in Aksai, and field consultations and participant observations in Berezovka, with Complainants, and in four other villages around the KOGCF: Bestau, Dimitrovo, Priuralnii, and Karachaganak. [35]

Desk Review

The CAO Team analyzed the following environmental, health, safety, and socioeconomic data for the desk review:

- Project ESIA (March 2002);
- Crude Accountability website (www.crudeaccountability.org)
- Social Baseline Assessment Report (April 2004);
- Annual Monitoring Report for 2002 (January 2004);
- Resettlement Action Plan for Tungush (May 2003);
- IFC Project Team's correspondence;
- Power Point Presentation to the CAO (November 2004); and
- Various independent health studies and reports on Kazakhstan conducted by international development and health organizations[36].

Field Visit

Field consultations were based on individual interviews and focus group discussions with representatives of Berezovka's community including women, men, and children of various age, education, occupation, health status, ethnicity and years of residence in the village. The interviews and discussions were conducted in Russian in a structured format. Field observations included: (i) site visits to Berezovka; (ii) areas of immediate proximity the KOGCF; (iii) site visits to Bestau, Dimitrovo, Priuralnii, and Karachaganak.

[35] According to Project's documents , there are eight villages in the proximity of the KPO Field SPZ zone and along the export pipeline that are considered to be *directly* and *indirectly* impacted – Berezovka, Zhanatalap, Bestau, Karachaganak, Dimitrovo, Priuralnii, Uspenovka, Zharsuat, and Karakemir. In addition, the village of Tungush has been resettled to the city of Uralsk as a result of a GoK decision.

[36] See Appendix 2 for further details.

Appendix 4: Actions Taken by Sponsor to Reduce Emissions and Other Pollution Sources

Pollution reduction and/or control measures:

1. Installation of a Super Green Burner (to reduce the amount of harmful pollutants emitted during flaring), addition of a fourth flash compressor at Unit 2 (to eliminate flash gas flaring), methanol regeneration at Unit 3, control-at-source technology upgrades at four stations within the field, to reduce emissions, new equipment/technologies with construction of Unit 2, KPC including GE turbines with low-NOX burners and gas recycling compressors that eliminate flaring, as well as modified well testing practices. The following actions were also taken: removal of 80,000 tons of drill cuttings, clean up of 37 drilling pits, and disposal of 28 abandoned rigs. In addition, KPO secured reduced flaring from well testing by approximately 75%, reduced flash gas flaring by approximately 75%, implementation of modern waste management techniques as well as continue re-greening and tree planting programs of scorched land (140 ha re-cultivated since 1998).

Monitoring:

2. KPO's environmental monitoring includes: equipment of each plant with continual air monitoring devices set at 10 ppm (15 mg/m^3) for H_2S; fire and gas detection system in place (incl. water, extinguishers and emergency plans); waste management (audited by special independent consultant); liquid and hazardous waste stored in concrete-lined polygons; waste segregation policy in place (waste-avoidance, reuse, recycling, recovery & disposal); domestic waste sent to an approved sanitary landfill; air, water and soil monitoring–186,000 data points generated each year; ground and surface water analysis done through 25 monitoring wells within the field plus 12 wells in 12 villages, including Berezovka.

3. KPO has to apply for a Nature Use Permit with the Kazakhstan authorities to be able to emit a certain amount of various pollutants. The Permit is granted based on the planned activities, but stipulates that even in case of unplanned emissions (such as plant upsets); the project must not exceed the maximum allowed levels by Kazakh law. The ambient levels are monitored at three points: inside every plant (at source), inside the field, and in each village, four times a day (every six hours). According to IFC, the project does not exceed the planned levels, and comes below in most months because of the use of advanced process technology and well testing techniques. Even with recent problems with facilities start-up (June, July and August 2004), the project has not exceeded permissible legal levels at measuring points, although the project exceeded the planned levels of emissions. However, the project reports and pays voluntary fines to the local environmental regulator (about US$9 million paid in 2004) for unplanned incidences where emission levels are exceeded. Compliance audits by the local authorities, Ministry of Environment, shareholders, IFC, and BMT Cordah are also carried out.

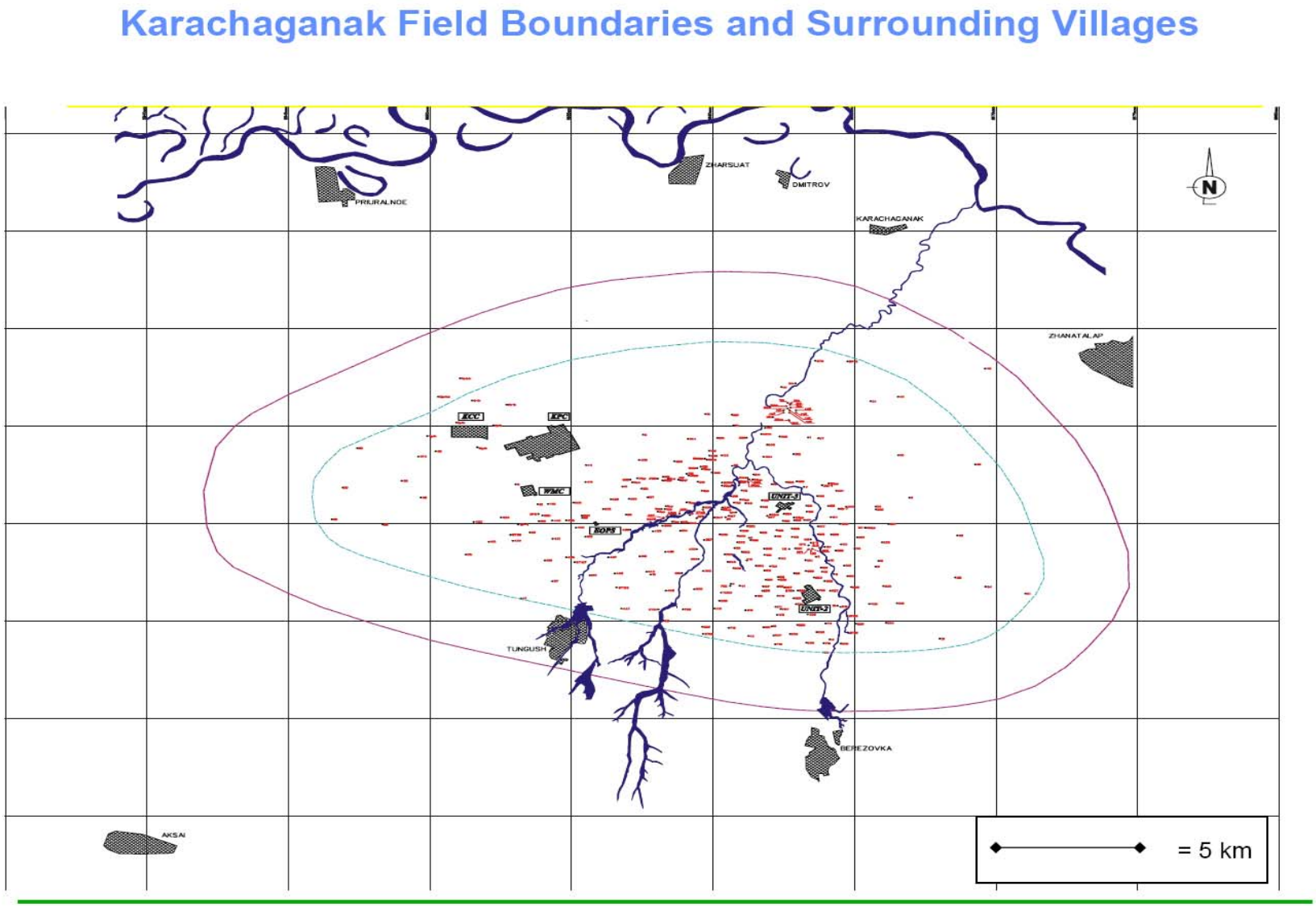
Compliance:

4. As a Category A project, certification by an independent third-party consultant is required. Edinburgh-based BMT Cordah was hired to provide third-party oversight for this project. In 2001, during project appraisal, IFC found the proposed project to be designed in full compliance with WBG/IFC policies and guidelines. Following supervision visits in October 2003 and October 2004, the Environmental Monitoring Plan (EMP), occupational, health, safety and social aspects of the project, air emission data and waste analysis, as well as any changes to design, were reviewed; all project facilities and communities were also visited. Independent monitoring by IFC for 2003 affirmed compliance, and preliminary indications for 2004 are expected to indicate the same.

Appendix 5: Resettlement Timeline

Late 1980s	Tungush village asked for resettlement
22 January 1991	Executive Committee of the District Council of People's Deputies endorsed proposal to relocate Tungush to the existing village of Kzyl-Tal
24 December 2002	Kazakhstan Ministry of Health decision to reduce SPZ to 1.5 km
27 December 2002	KPO submits SPZ Project Design for natural emission reduction efforts to Kazakhstan Ministry of Health and Environmental Protection including provision for an additional 1.5 km "no-encroachment" zone
24 January 2003	Kazakhstan Ministry of Health approved the SPZ Project Design, including "no-encroachment" zone
4 March 2003	KPO and Western Kazakhstan Oblast signed a Protocol for the resettlement of Tungush to the urban center of Uralsk
27-28 March 2003	Joint Operating Committee (KPO partners and KazMunaiGas) endorses KPO's funding arrangement for resettlement
15 May 2003	Resettlement Action Plan approved by the Akim of the Western Kazakhstan Oblast and Managing Director of KazMunaiGas
27 May 2003	Tungush resettlement completed

Appendix 6: Map of KOGCF and Surrounding Villages



Source: Social Baseline Study, October 2003.