June 2025

A Broken Promise:

Kazakhstan Refuses to End Oil Extraction on Crucial Aquifer

Just finance

June 2025

"Love nature, that love is mutual" the billboard from China-controlled CNPC-AMG exclaims in this picture taken near the Zhanazhol Oil and Gas Processing Complex just east of the Kokzhide sands. CNPC-AMG's and other oil companies' operations on the sensitive aquifer continue to threaten a unique biosphere and an increasingly essential freshwater source. Photo: Just Journalism, August 8, 2021.

The government of Kazakhstan is reneging on its promise to finally shut down one of Central Asia's most unsustainable industries: oil extraction on the Kokzhide groundwater reservoir. Stakeholders must urgently withdraw their complicity in further contaminating this unique water resource, which could prove essential for millions of people in the drought-stricken region.

Key Findings

1. The government of Kazakhstan has quietly doubled back on its 2023 pledge to phase-out oil and gas production on the remote steppe sand massif Kokzhide, instructing instead its officials to maintain output levels—despite the documented harm and threat to a strategic aquifer and the local population.
2. Contradictions, unclarity and denial of information from authorities and oil companies, of whom a large portion are controlled by China, mar public scrutiny and democratic accountability on this issue.
3. For Kazakhstan, the economic benefits of further operations at the site seem small compared to the price tag: in order to continue to extract fossil fuels that amount to only 1 percent of annual national production, the government is endangering—possibly polluting beyond restoration—freshwater resources important for more than 10 percent of its population.
4. There is broad societal support for protecting Kokzhide and a recent letter to JFI from the Kazakh Deputy Minister of Energy claims the government is currently weighing the value of this water resource against that of further oil extraction.

5. This indicates a window of opportunity now for Kazakh civil society and the international community to engage with the Kazakh government on this issue. Similarly; US, Norwegian, UK, German and other investors in corporations controlling much of Kokzhide extraction should clarify to boards that prioritising short-term fossil fuel extraction over long-term water security is not only unethical but also fraught with business risk.

Main Threats

- **Aquifer pollution**

"I showed back then, three or four years ago, that our water had a stale taste, as if it was stagnant water. By now, our water has been turning yellow." Akmaral, Bashenkol village, August 19, 2024.[1]

Kokzhide is a pristine sand dune field in the arid steppe of Western Kazakhstan, comprising roughly 350 square kilometers and located some 250 kilometers south of regional capital Aktobe. It is designated a natural reserve on both the national[2] and regional levels[3], due to its ecological, scientific, cultural-historical and recreational value. Because of the exceptionally pure water—the result of rain filtered through the ground for millions of years—oil exploration was banned here both in Soviet times and after independence[4]. Among the rare and vulnerable species documented in the area are steppe antelopes, gazelles, falcons, eagles, sandgrouse and cranes.[5]

Still, at least since the 1990s, hundreds of wells have been drilled around and within the sand massif. According to the 2017 Kazakh Water Code and the Subsoil Use Code, subsoil activities such as oil and gas extraction are prohibited within the boundaries of groundwater reserves that are—or could be—used for public needs. However, a senior environmental official told inquiring journalists that because oil and gas extraction at Kokzhide began prior to the law's enactment, it may not apply.[6]

Pumpjacks of KMK Munai near the Kokzhide sands. In 2023, this China-controlled company undertook to decommission 167 wells located within the Kokzhide groundwater contour. A year later, the government of Kazakhstan quietly instructed officials production volumes would not diminish. Photo: Just Journalism, August 19, 2024.

Kokzhide is a three-layered structure: from a few meters below the surface down to around 150 meters lies the groundwater, embedded in sand. Beneath that, extending to roughly 500 meters, is a supra-salt oil field. Below this sits a salt layer, and at a depth of 3,000 to 4,000 meters lies another, sub-salt, oil field.[7]

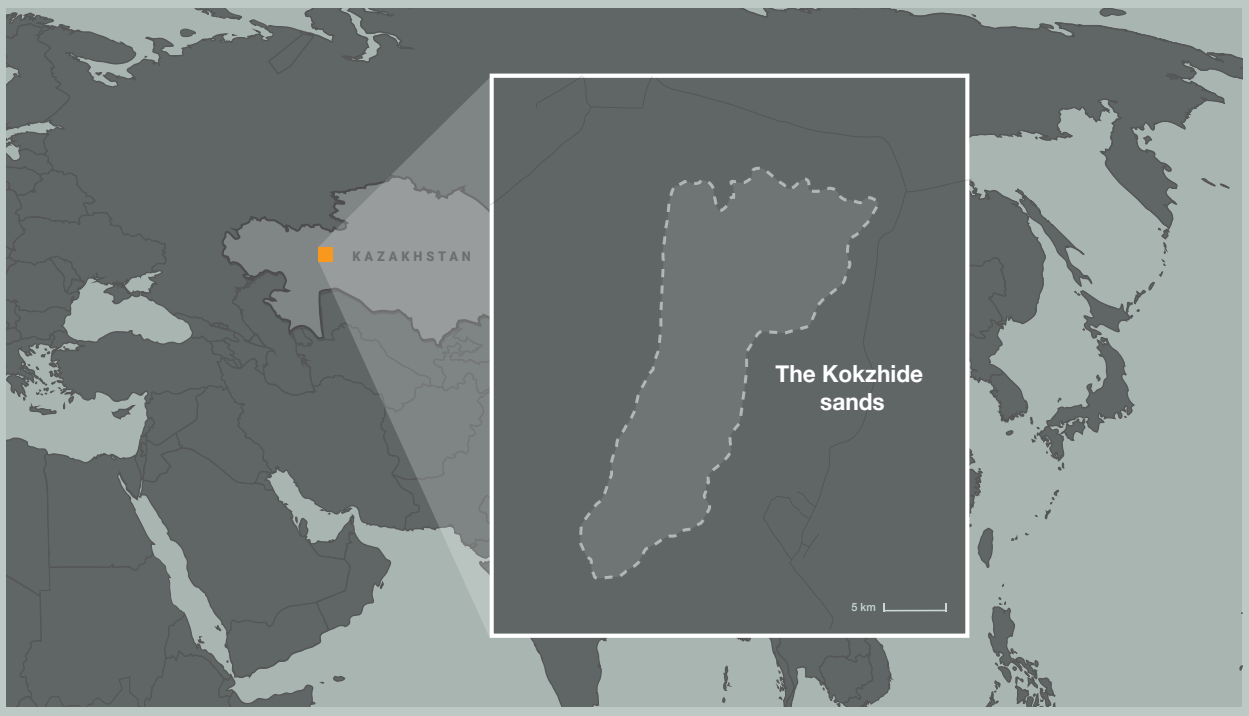
Due to the high viscosity of the crude oil, operators inject steam into the wells to dilute the oil, increase its pressure and facilitate extraction.[8] This method—known as thermal enhanced oil recovery—introduces a host of additional environmental risks and costs, including blowouts, carcinogenic emissions into the aquifer, high fresh water usage, and the discharge of contaminated water after extraction.[9]

At least since 2010, tests have found that the extraction has begun to pollute the ultra-sensitive groundwater. According to data from 2010 to 2014, the norm for oil products measured in three observation wells was exceeded up to 42 times.[10] In 2015, the concentration of pollutants exceeded official limits by 1,000 times for iron, 15 times for oil products and 20 times for cadmium.[11] In 2023, the Minister of Ecology confessed pollution in the aquifer was up to 20 times above the legal limit.[12]

"These deposits today, I believe, have already been completely polluted." Makar Utegenov, Kenkiyak village.[13]

The Kokzhide sands—a unique resource under threat

Located in extremely arid Western Kazakhstan, the sand dunes of Kokzhide (in Kazakh: Көкжиде) sit on top of a vast reservoir of ultrapure water. Years of oil extraction increasingly contaminate the unique resource, but the Kazakh government has just scrapped its own rescue plan.



As global warming accelerates, authorities plan to use the estimated 1.5 billion cubic meters of ultra-clean water in Kokzhide to alleviate growing water scarcity in large parts of western Kazakhstan.[14] Just before another summer threatening to break temperature records, Kazakh president Kassym Joomart-Tokayev acknowledged the increasing inadequacy of desalinating and cleaning enough water in the area and placed hopes in the construction of a water pipeline from Kokzhide.[15]

But a potential oil spill into the unprotected sands could extinguish these hopes. In 2009, the regional health inspectorate warned that the underground layers of water—formed by rain and thaw—would be affected by "any pollution around this basin.../... Any accident in the oil production could lead to the water being lost."[16]

Already in 2012, researchers writing in the Medical Journal of Western Kazakhstan noted: "Extracting oil without polluting the water basin is practically impossible. In any case, the contamination associated with oil extraction gets onto the surface of the sands and, with meltwater, penetrates into the underground water basin."[17]

The four authors continued: "During the drilling of exploratory and production wells..../...drilling mud seeps into the water-bearing sands, chemically contaminating the fresh water. The placement of oilfield facilities of oil companies within the sand massif is also one of the sources of pollution. The oil extracted from sub-salt carbonate rocks (from a depth of 6,000 meters) is accompanied by associated gas containing up to 3 percent or more of hydrogen sulfide, which is mainly burned in flares, poisoning the entire surrounding environment."

Alarmingly, authorities appear to have ceased monitoring pollution of the Kokzhide aquifer altogether. In September 2023, responsibility for inspecting all underground water bodies in the country was transferred from the Ministry of Ecology and its departments to the newly established Ministry of Water Resources and Irrigation. However, according to a newspaper report, the latter only has a representative office in the Aktobe region, and has been authorized solely to oversee *surface* water.[18] Underground waters like the Kokzhide aquifer have been left without oversight. In response to written queries, the Aktobe Region Department of Natural Resources and Environmental Management confirmed that no monitoring of the Kokzhide aquifer was conducted in 2024.[19]

- **Waste of drinking water and lack of water access**

Kazakhstan is the largest landlocked country in the world. More than half its territory consists of desert and semi-desert, while another quarter is steppe—often severely arid.[20] Desertification and droughts threaten the livelihoods of the millions of people living in western Kazakhstan and place increasing pressure on the biosphere.[21] In general, the steam-enhanced oil recovery method used in oil production at Kokzhide is both water- and energy-intensive.[22]

Kenkiyak village. Oil-related pollution and water scarcity challenge families around the Kokzhide sands. Photo: Just Journalism, August 19, 2024

In a publicly available 2024 report, CNPC-Aktobemunaygas (CNPC-AMG)—one of five oil operators in the area—reveals that its supra-salt operations in the Kenkiyak oil and gas field require an estimated 5,000 cubic meters of Kokzhide's underground fresh water per day.[23] Figures for water usage of CNPC-AMG's other operations, as well as by the other companies operating in the area, are not known by JFI.

According to the Aktobe Department of Ecology and Natural Resources,[24] the Zhaik-Caspian Department of Ecology[25] granted permission for companies at Kokzhide to use six million cubic meters of water annually until 2025. Out of that, four million cubic meters are allocated for industrial purposes, and two million for drinking water supply. Under the national Water Code, the use of drinking water for industrial purposes is permitted only when no alternative is available.[26] A senior environmental official told journalists, "These companies should be told to look for other underground water, which there seems to be," citing the nearby Zhem and Temir rivers.[27]

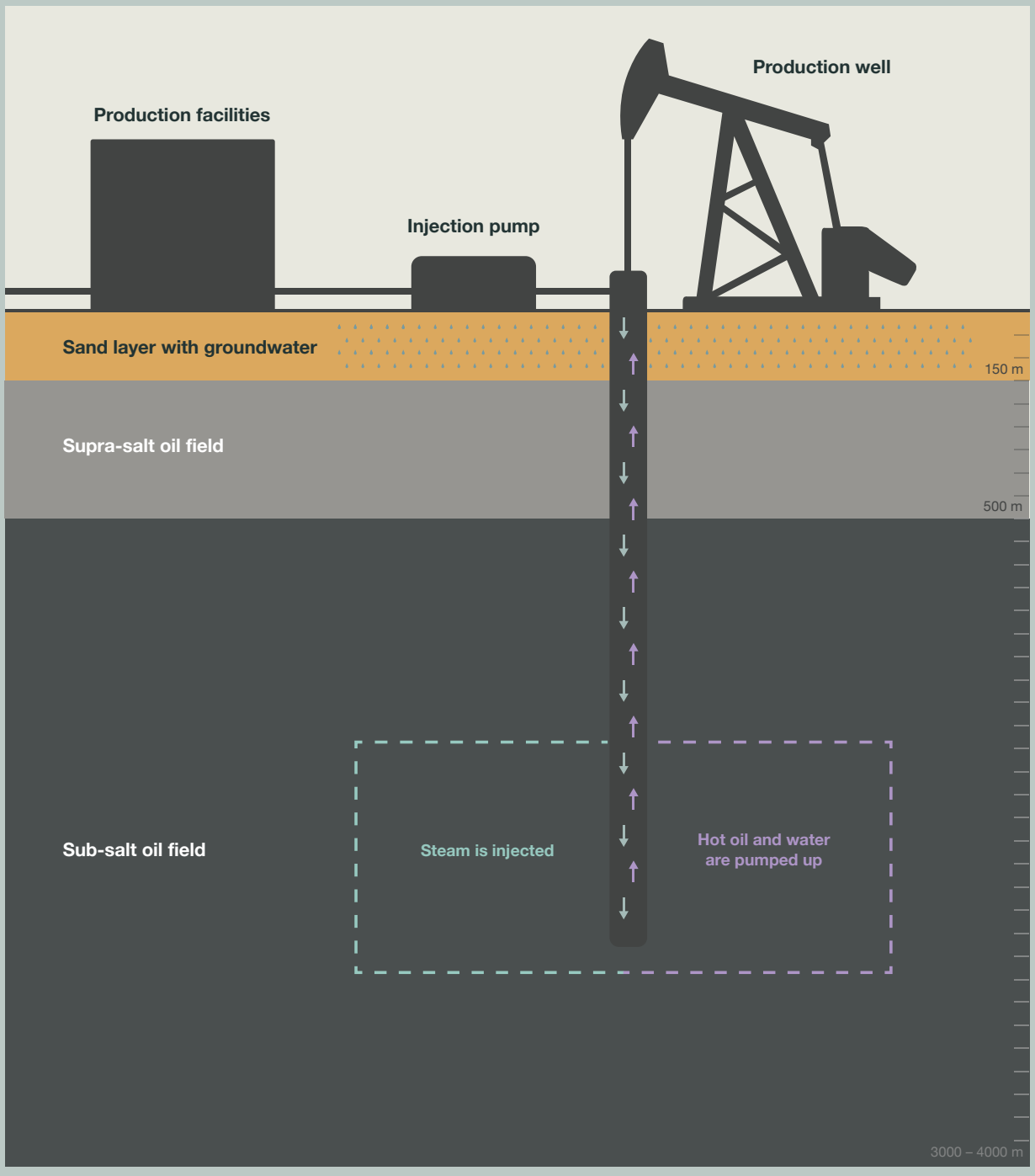
"Water's not in our management. It's in CNPC's hands. They supply water through their channels but it doesn't reach us.../ They reduce the pressure and then it doesn't reach the village.../ That's why we raised the shouting and then... and then they gave us a little bit of water. But again, water hardly reached the second floor in high-rise buildings." Ardak, Kenkiyak villager.[28]

Despite being located just a few kilometers from the aquifer, the villages of Kenkiyak and Sarkol do not have full access to its water and have instead been experiencing drinking water shortages during the summer. Water is supplied by CNPC-AMG. Local residents are aware that a large amount of freshwater is diverted to the oil field, where it is used for drilling and oil production.[29] For nearly a quarter of a century of CNPC-AMG operations in this area, the problem of water supply for local residents has remained unresolved.

It is illuminating to here compare the value of the oil and gas extracted at Kokzhide with the value of the groundwater still available there. According to a recent statement from the Ministry of

Enhanced oil recovery: resource-intensive and risky

In order to make the crude oil thinner and easier to extract, steam is injected into the oil reservoir. The process uses valuable Kokzhide freshwater and increases the risk of contamination to the aquifer and its surroundings.



Energy, annual production from oil wells within the Kokzhide groundwater deposit amounts to 600,000 tons of oil and 700 million cubic meters of gas.[30] By comparison, Kazakhstan's total oil production in 2023 was 90 million tons,[31] with gas production at 60 billion cubic meters.[32] Kokzhide's contribution, then, represents just 0.7 percent of the country's annual oil production and 1.2 percent of its gas output. In contrast, the aquifer's water could supply three regions of western Kazakhstan,[33] home to approximately 2.4 million people—more than 10 percent of the population.

"I understand: This is investors. As compensation they need to be offered other deposits, because further exploitation is fraught with risk for us." Ondasyn Urazalin, governor of Aktobe region, March 31, 2022.[34] In February 2025, Urazalin, who also served as deputy head of the presidential administration, was appointed to the board of KMK Munai, a China-controlled oil company operating on Kokzhide.[35]

Water container in the Saga village, near Kokzhide. The ultra-clean waters from the aquifer are used in oil extraction, but not made available for human consumption in all local communities. Photo: Just Journalism, August 8, 2021

- **Air pollution**

"This odor persists. It's impossible in the morning, impossible in the evening, at night.../ Oh, the odor!" Ardak Kubasheva, Kenkiyak villager[36]

During oil and gas recovery, highly toxic[37] hydrogen sulfide (H_2S) is often released—especially when output is enhanced with steam.[38] Air quality in the villages Kenkiyak and Shubarshi, near the oil extraction sites, is marked by high levels of pollution.[39] Tests in 2023, for example, showed H_2S concentrations at 4 to 5 times the maximum permissible concentration[40] in these villages.[41]

In 2011, the Chief Sanitary Physician of the Aktobe region, Kuralai Karaken, suggested in the regional parliament that residents of Shubarshi and Sarkol be resettled due to persistently high concentrations of H_2S and other toxic substances in the air.[42] The statement was quickly withdrawn.[43] Local residents themselves have repeatedly raised the issue of resettlement over the years, citing the poor environmental conditions and high rates of disease,[44] linked to both air and water pollution.
The scale and persistence of environmental pollution are further illustrated by fines imposed on extraction companies. From 2021 to 2022, inspections found CNPC-AMG responsible for excess emissions and pollution—including soil contamination at the Kokzhide field—and ordered the company to pay over 1 billion Kazakhstani tenge (more than 2 million USD)[45] in damages. Similarly, in 2022, the Kokzhide operators Ada Oil and KMK Munai were also fined for polluting the area.[46]

Abnormal levels of carcinogenic substances have been detected in vegetables grown in local gardens,[47] and excessive amounts of oil products have been found in the nearby Temir river.[48]

According to a study by the environmental consultancy Ecoservice-S LLC, commissioned by government agencies, the local population suffers from elevated rates of respiratory diseases, blood disorders, and other health issues directly linked to air pollution.[49]

- **Lack of information and alleged obstruction of public participation**

Movement restrictions around the oil production sites—enforced by the oil companies—hamper public scrutiny. The Kokzhide sand dunes can only be accessed at a few points along the road.

The Aktobe Region Department of Ecology has not responded to JFI's written inquiries on whether these de facto no-go zones have also obstructed inspectors' access or ability to monitor pollution.

Following public campaigning against oil production, authorities began holding public hearings in the villages. However, several residents allege that officials manipulate these gatherings to suppress criticism.

"Akimats[50] were lobbied so that public hearings were held now in Zhanazhol, then in other regions, where there are mainly oilfield workers./...they are all hired employees and can be fired if they demonstrate disagreement. Persecution, dismissals... That's why no one really insists on these issues." Makar Utegenov, Kenkiyak village[51]

Checkpoints staffed by the oil companies limit access to the Kokzhide sands. This one belongs to the Ada Oil company, controlled in part by Russia. Photo: Just Journalism, August 18, 2024

Following reports of air pollution, authorities installed emission meters in Kenkiyak and Shubarshi around 2020.[52] However, villagers accuse officials or companies of deliberately falsifying the readings.

"We'd been capturing the readings for a couple of months, then men started coming, tinkering, as if something broke, something with the equipment.../ They even told us themselves. /... they said that they were ordered to do that, not to show such a level." Ardak Kubasheva, Kenkiyak villager.

Elsewhere abnormal levels of toxic hydrogen sulfide gas is a constant near the oil production. Air monitoring station, Kenkiyak village, August 18, 2024. Photo: Just Journalism

The Phase-out Decision And Its Reversal

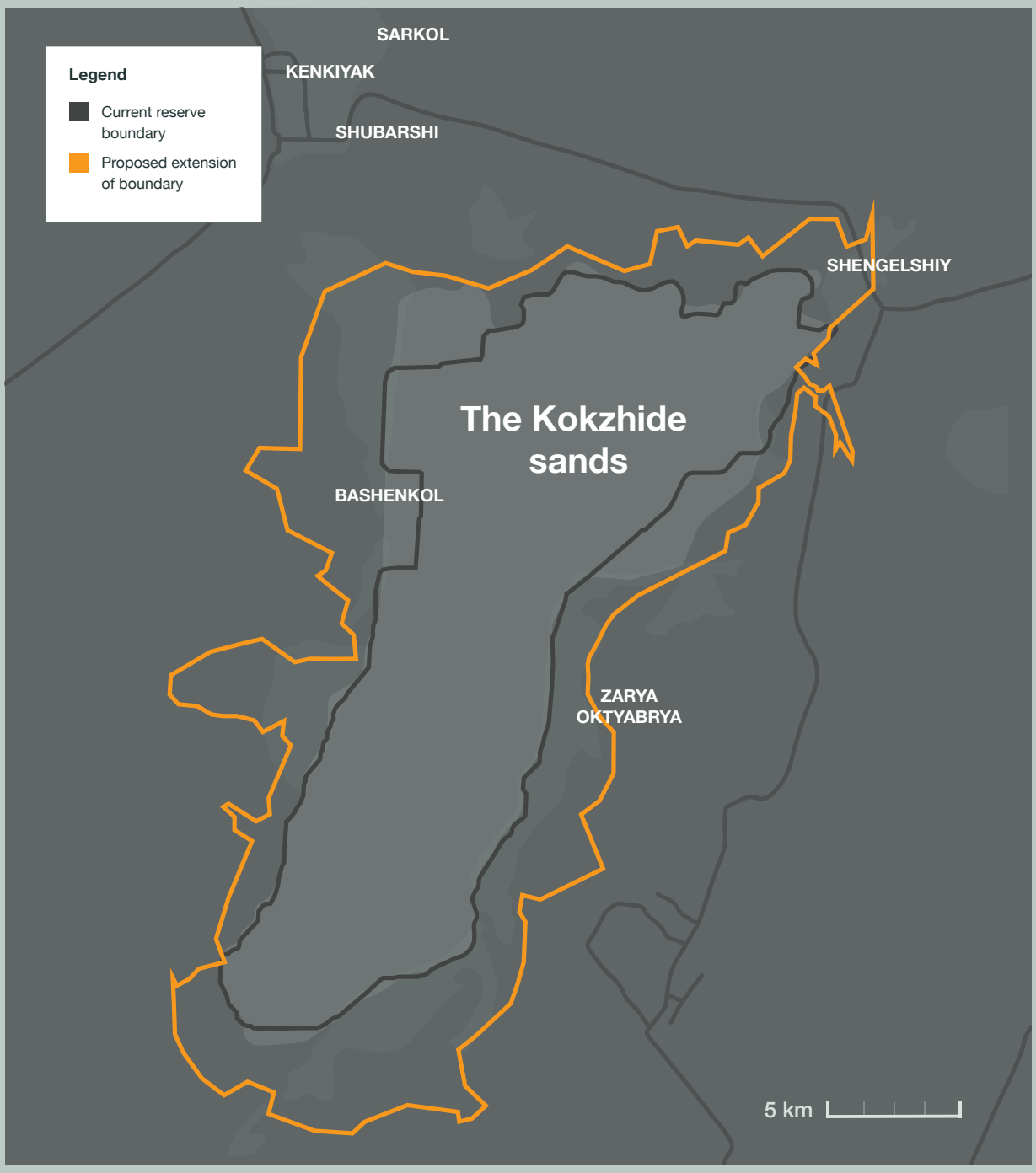
As indicated in this report, the calls for closing down the subsoil operations on the Kokzhide aquifer have come from a broad spectrum of Kazakh society—in the Aktobe region and beyond. The need to urgently preserve Kokzhide is shared by not only affected villagers, environmental activists and concerned researchers but also regional authorities: the Department of Environment, the prosecutor's office, and even Aktobe's top political decision-makers.

In 2021, interviewed for the online documentary "Oil or water", the then deputy governor of Aktobe region Zhaksygali Imankulov expressed regrets that the national government had allowed oil-extracting companies into Kokzhide, said that they should leave and the area be fully protected as a natural reserve. He explained that the Aktobe region was at the time working with the Ministry of Energy and the Ministry of Environment and Natural Resources to make that happen. "Water is more valuable to us, and there is an increasing understanding of that, recently."[53] See Addendum 2 in this report for a full transcript of this top official's comments.

In 2022, residents of villages close to Kokzhide together with activists of Aktobe city appealed

The Kokzhide sands—inadequately protected

In 2021, officials concluded that the Kokzhide-Kumzhargan natural reserve should be expanded to reflect the real boundaries of a highly sensitive environment, particularly the underground aquifer. The expansion would place many more oil wells inside the nominally protected area but has for reasons unknown been stalled indefinitely.



to authorities for full protection of the aquifer and its surroundings and demanded the establishment of a publicly accountable monitoring system for the area.[54]

This persistent and mounting pressure led to a landmark Government of Kazakhstan decision in 2023:[55] detailed plans, signed with the heads of the five major extraction corporations operating in the area, outlined the complete decommissioning of oil and gas production on Kokzhide.[56] A total of 332 oil wells would be phased out gradually by 2031. Not only would production cease, but all equipment would be removed and the sites fully "recultivated" according to the agreement.

For example, Wang Jinbao, General Director of the China-controlled KMK Munai corporation, signed a plan committing to the decommissioning of 20 wells per year from 2025 to 2028, 25 wells in 2029, and 62 wells in 2030.

By the fall of 2024, however, the government in Astana had gotten cold feet. In an internal memorandum in September to the Ministry of Energy, Deputy Prime Minister Roman Sklyar made it clear: while pollution of the Kokzhide reserve would be studied, production volumes were not to be reduced.[57]

The public was initially kept in the dark. Signs of the reversal emerged only in December 2024, when oil companies, officials and select academics held a conference in Aktobe on future oil extraction and enhanced recovery methods. According to a newspaper report,[58] this "hackathon" was not announced officially, but a few independent academics and activists were able to attend. KazMunayGaz, the national oil company which owns one of the five operators in Kokzhide and partly controls another, initiated the event. Co-organiser was the Samgau Center for Scientific and Technological Initiatives. Both KazMunayGaz and Samgau belong to the portfolio of Samruk-Kazyna, Kazakhstan's vast state holding corporation.

In late January 2025, a regional newspaper broke the news of Sklyar's memorandum.[59]

Still, decommissioning work has begun, and as of publication, there has been no publicly communicated formal decision to cancel the plans. Government figures differ on how many wells were decommissioned in 2024. The Department of Ecology for Aktobe Region reports that two CNPC-AMG wells and another two belonging to Urikhtau Operating were decommissioned that year.[60] The national Ministry of Ecology and Natural Resources, however, states that only the latter two wells were decommissioned during the same period.[61]

"[W]e told [them] that this water is important for all of Kazakhstan, especially for Western Kazakhstan, but it seems they care neither about this water nor for its fate. All they are concerned about is to earn a profit on this land, to make money." Akmaral, Bashenkol village

Bashenkol village, August 19, 2024. Horses drinking water the villagers fear is polluted. Ada oil has been producing oil and gas near the village since 2009. Photo: Just Journalism

Further Problems

Between 2019 and 2021, a consultancy commissioned by regional authorities investigated the boundaries of the Kokzhide aquifer and found that the underground waters covered an area nearly twice the size of what had been officially recognized.[62]

Alarmingly, this means that many more oil wells than previously known are piercing the aquifer—significantly increasing the risk of contamination.

A proposal to expand the Kokzhide-Kumzhargan natural reserve accordingly—intended to protect this newly understood sensitive area—was introduced but has since been stalled.[63] Official communication about oil operations and the supposed phase-out has also been riddled with contradictions. For instance, statements about how many oil wells are located on the Kokzhide sand massif (let alone on the aquifer below) have varied wildly, with recent figures ranging from 785[64] to as few as 296.[65]

Further complicating the picture—and undermining both public oversight and government efficiency—the five decommissioning plans cite a total of 332 wells slated for closure. However, when counting only those wells explicitly said to be lying within the sand massif (including 13 from CNPC-AMG, which references the expanded aquifer boundaries), JFI arrives at a total of just 187. With authorities and companies either withholding accurate data—or perhaps unaware of it themselves—regarding the true boundaries of the aquifer and the exact number of wells operating within and beyond it, meaningful accountability becomes increasingly difficult.

"We have been struggling for so long, we have written so much, we have people's cry from the heart, but so far there is no result. They keep promising, but..." Ardak Kubasheva, Kenkiyak village

The Government's Perspective

In late February and early March 2025, JFI sent emails and physical mail to key Kazakh authorities: the Prime Minister's Office, the Ministry of Energy, the Ministry of Ecology and Natural Resources and the Aktobe Department of Ecology.[66]

On April 29, 2025, Sungat Yesimkhanov, deputy minister of Energy, responded to JFI, see Addendum 1.[67] He named economic sustainability, energy security and the ongoing situation on the oil market as reasons for the 2024 decision to maintain oil production levels on the Kokzhide underground water reservoir. He acknowledged a decision has been made to decommission all oil and gas extraction wells on the aquifer, in order to safeguard its "unique water resources", and then spoke about the importance of finding a balance between the two priorities. He concluded: "Given the importance of Kokzhide for water supply in three regions of western Kazakhstan, a balanced solution is being worked out that will not only contribute to maintaining energy and economic stability, but will also ensure the protection of water resources."

A question sent to authorities that remain unanswered is: Why has the Kokzhide-Kumzhargan natural reserve not yet been expanded, despite the approved plan to do so?

Additionally, JFI has requested detailed maps of the five companies' operations and well locations to determine how many wells are situated within the boundaries of the underground waters. To date, no such information has been provided.

The Corporations' Perspective

In late February and early March 2025, JFI sent emails and physical mail also to the five oil companies operating at the Kokzhide aquifer: CNPC-AMG, KMK Munai, Ada Oil, Kazakhoil and Urikhtau Operating.[68] JFI enquired about the documented pollution at Kokzhide, requested results from their emission monitoring, asked for updates on their decommissioning efforts, and sought clarification on the precise locations of their operations relative to the sensitive aquifer.

On April 4, 2025, Kazakoil's management responded, stating that "the Company's industrial activities, including those in the Kokzhide groundwater area, are aimed at minimizing environmental pollution. Both the Company itself and environmental protection organizations carry

out continuous monitoring to prevent environmental contamination. In the event of the adoption of a regulatory legal act prohibiting industrial activity in the Kokzhide groundwater area, the Company will cease operations in the mentioned area." Kazakhoil claimed that it was legally prevented from providing further information.

Unfortunately, by the time of publication, JFI had received no response from the other four oil companies.

The five main oil companies operating on and near the Kokzhide aquifer are:

Joint Stock Company CNPC-Aktobemunaigas (CNPC-AMG),[69] controlled by China, is one of Kazakhstan's largest oil and gas producers. In 1997 it became China's first step into the Kazakh oil and gas industry.[70] Operates in the Zhanazhol and sub-salt Kenkiyak oil and gas deposits, and the supra-salt Kenkiyak oil deposit. In its phase-out plan, CNPC-AMG undertook to decommission 26 wells.

JSC KMK Munai, also China-controlled, with 50 percent plus one of its shares belonging to CNPC-AMG and the rest belonging to Panamanian shell entity Yukon Energy Holding S.A. Operates the neighbouring Kokzhide, Mortuk and Kumsay deposits, adjacent to CNPC-AMG's territory. In its phase-out plan, KMK Munai undertook to decommission 167 wells.

Firma Ada Oil LLP, according to its website[71] owned by Netherlands-registered Kernhem (since at least 2004), Kazakh company Perfect Capital Group (since 2022) and Russian state-controlled pipeline monopoly Transneft (since 2024).[72] The first two seem in their turn owned by two or more Kazakh businessmen.[73] Until 2022, Korea National Oil Corporation held shares in Ada Oil. Ada Oil in 2009 opened the Bashenkol field, in the western outskirts of the aquifer. It comprises 31.2 square kilometers and extraction is allowed to a maximum depth of 532 meters.[74] In its phase-out plan, Ada Oil agreed to decommission 99 wells.

Kazakhoil Aktobe LLP. The company's participants, on an equal basis, are the national Kazakh company KazMunayGas and China, through Caspian Investments Resources Ltd, a subsidiary to Sinopec.[75] Kazakhoil operates in the Kozhasay and Alibekmola deposits, on the eastern side of the sand. In its phase-out plan, Kazakhoil Aktobe agreed to decommission 38 wells.

Urikhtau Operating JSC. ully-owned by the state of Kazakhstan, through the company KazMunayGas.[76] Its territory Eastern Urikhtau, east of the sand massif, comprises 33 square kilometers and extraction is allowed down to 4,500 meters. In its phase-out plan, Urikhtau Operating agreed to decommission 2 wells.

Additionally, LLP AOC Trade Group is an Almaty-based company that has won rights[77] to, until 2026, explore and extract oil near the aquifer.[78]

Kazakhoil Aktobe pipelines near the Kozhasay village, neighbouring the Kokzhide aquifer. This Kazak-Chinese joint venture is the only company to have responded to JFI's written questions, but claimed it was largely unable to give detailed answers regarding e g the exact location of its wells relative to the underground water reservoir. Photo: Just Journalism, August 8, 2021.

Investors Supporting Kokzhide Oil Extraction

Most of the ownership in the companies operating in Kokzhide traces back to the Kazakh and Chinese governments; however, private financial institutions also provide capital. Through bond and equity holdings in parent companies and financing subsidiaries, financial institutions based in the United States, Norway and elsewhere provide billions of USD in liquidity.

Kazakhstan's 2024 reversal of its phase-out

Top 25 non-Kazakhstani investors in Kokzhide oil operations

Aggregated investments in CNPC, KazMunayGas and Sinopec. Millions USD as of May 2024

Investor Parent	Investor Parent Country	Shareholding	Bondholding	Total
Minnesota State Board of Investment (MSBI)	United States	3	2 329	2 332
BlackRock	United States	1 458	167	1 625
Vanguard	United States	861	47	908
Government Pension Fund Global (GPFG)	Norway	639		639
GQG Partners	United States	487		487
CITIC	China	473	12	485
China Life Insurance	China	478		478
E Fund Management	China	466		466
Central Huijin Asset Management	China	449		449
HSBC	United Kingdom	393	30	423
REFORM Investment	China	381		381
Dimensional Fund Advisors	United States	369		369
China Merchants Bank	China	336		336
Fidelity Investments	United States	259	36	295
State Street	United States	271	4	276
Allianz (incl. AGI, PIMCO, Allianz SE)	Germany	161	92	253
Geode Capital Holdings	United States	200		200
Schroders	United Kingdom	169	25	194
Fidelity International	Bermuda	182	10	192
JPMorgan Chase	United States	85	104	189
Guosen Securities	China	187		187
Equitable Holdings	United States	74	103	177
Sun Life Financial	Canada	36	137	172
Crédit Agricole (incl. Amundi)	France	31	141	172
Goldman Sachs	United States	19	142	162
Grand Total		**8 466**	**3 381**	**11 847**

Source: Urgewald - Investing in Climate Chaos – May 2024

The source here is Urgewald, a German environment and human rights NGO that runs two publicly available databases on inter alia oil and gas companies and the investors and financiers behind them.

commitment must result in these financial institutions influencing their investees away from the present unsustainable activities at Kokzhide. In the face of the blatantly hazardous practises detailed in this report—and pending the Kazakh government's decisive return to the decommissioning plans— we call on shareholders and bondholders to advocate for a remedy to this hazardous fossil fuel extraction and unacceptable risk of destroying a key freshwater source in an ultra-arid region.

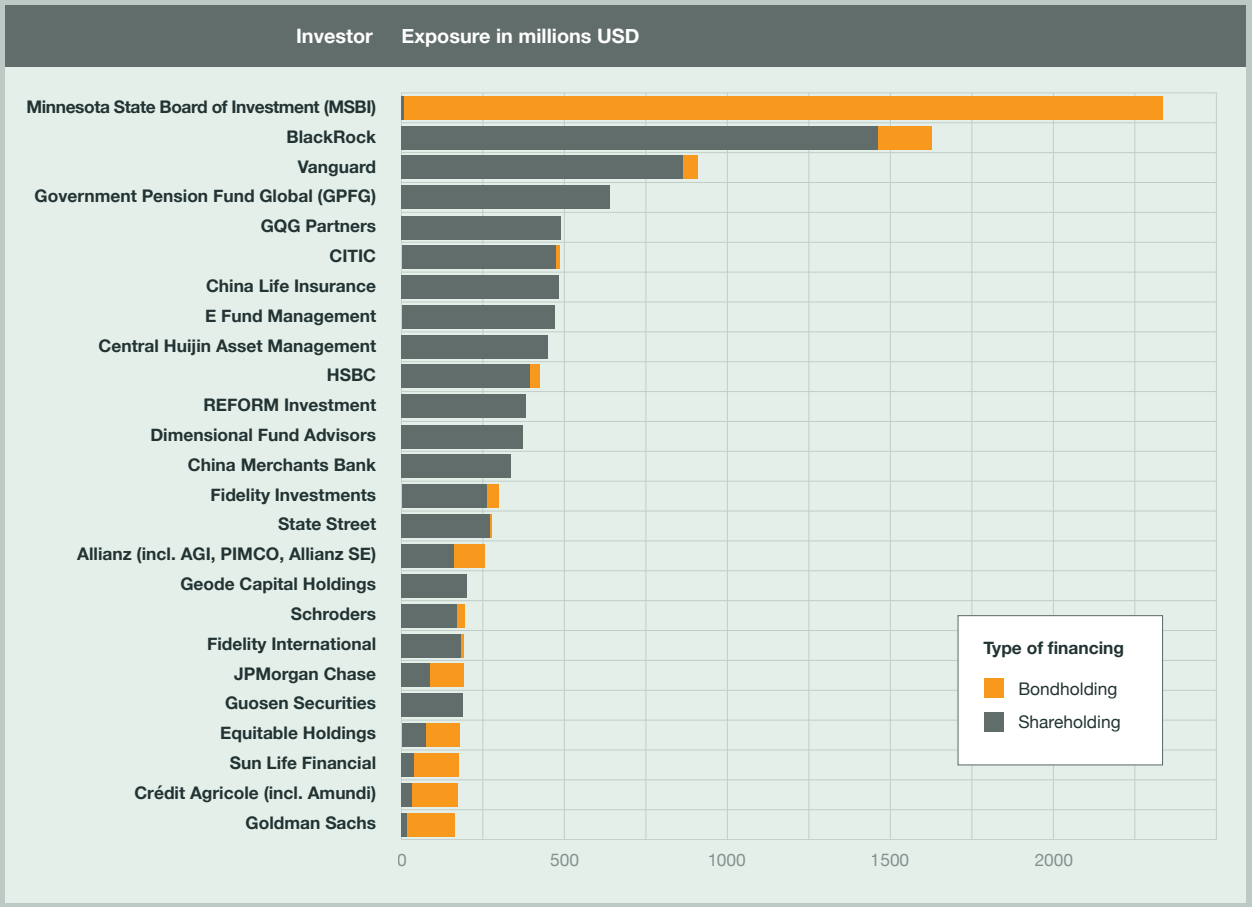
Several investors in CNPC, Sinopec and KazMunayGas are signatories to, or have policies aligned with, initiatives like the Valuing Water Finance Initiative (VWFI)—a global investor-led effort to engage companies with a large water footprint and drive large-scale change.[79] While VWFI focuses on other industries than oil and gas, the Kokzhide extraction's direct connection to water pollution, water scarcity and water insecurity mirror some of the unsustainable practises VWFI calls out. As of May 2025, of the 108 VWFI signatories, JFI found 26 to have investments in CNPC, Sinopec and/or KazMunayGas. Two of these appear in the top 25 list of non-Kazakhstani investors: Fidelity Investments and Amundi.

Obviously, financial institutions who have committed to treasuring water as such a foundational resource have not only a clear mandate but a public imperative to actively engage their portfolio on such issues.

JFI calls on all investors and financiers in CNPC, Sinopec and KazMunayGas to exercise their share- and bondholder influence and demand concrete, measurable and urgent action to protect the Kokzhide aquifer.

Investment in Kokzhide oil operations—bonds vs shares

Non-Kazakhstani investors in CNPC, Sinopec and KMG, aggregated investments. Breakdown by type of financing. Millions USD as of May 2024



Source: Urgewald - Investing in Climate Chaos – May 2024

Addendum 1: An Answer To JFI From The Kazakh Ministry Of Energy (Extract)

No. 05-12/2857-[] dated 29.04.2025

.../...

Deputy Minister S. Yessimkhanov

1. Decision to maintain oil production volumes in the Kokzhide field

In 2024, a decision was made to maintain the current oil production volumes at the Kokzhide groundwater deposit. This decision was driven by a number of factors, including the importance of hydrocarbon resources for the country's economic sustainability and energy security, as well as the current situation in the oil market.

It is important to note that, in this respect, the Ministry of Water Resources and Irrigation of the Republic of Kazakhstan has been tasked to carry out additional studies with a view to determining the possibility of safe oil production within this particular deposit in order to minimize the possible impact on the unique water resources.

2. Correlation with the need to discontinue production to conserve sweet water

Earlier, a decision had been made to shut down all oil and gas production wells at the Kokzhide groundwater deposit in order to preserve its natural value.

However, in order to make a final decision on how to achieve a balance between exploitation of hydrocarbon resources and protection of water resources, the Ministry, together with the authorized government agencies, design and scientific organizations, independent experts in the field of hydrogeology, held a series of meetings concerning preservation of the Kokzhide groundwater deposit and the Kokzhide sands.

Due to climate change and growing freshwater scarcity, continued hydrocarbon production within the Kokzhide field requires additional studies to help determine the possible risks to aquifers and the feasibility of such measures in the long term.

3. Justifying the risks to the unique sweet water deposit

Before making a final decision on whether to continue hydrocarbon production within the confines of the Kokzhide field, it should be taken into account that hydrocarbons are of strategic importance to maintaining the stability of the country's energy infrastructure. Risks to the groundwater deposit ecosystem should be minimized through the application of innovative technologies, as well as mandatory environmental impact assessments and monitoring of water resources. Given the importance of Kokzhide for water supply in three regions of Western Kazakhstan, a balanced solution is being worked out that will not only contribute to maintaining energy and economic stability, but will also ensure the protection of water resources.

Addendum 2: Statements On Kokzhide By A Former Deputy Governor

In the Russian-language documentary film "Oil or water - what will we drink in ten years?"[80], published on September 21, 2021, the then deputy governor of the Aktobe region, Zhaksygali Imankulov, made the following statements on camera.

[I] Interviewee — Zhaksygali Imankulov
[J] t interviewer

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[1:10:36] [I] The area that is covered by the Kokzhide sands, there are currently oil producing companies sitting on those sands.

[1:10:45] [J] Uh-huh.

[1:10:45] [I] And that's understandably so. The question here is, I mean: They must leave that place. Because it is the future area, the Kokzhide — Kumzhargan specially protected natural area of local significance.

[1:10:57] [I] We have established the Kokzhide — Kumzhargan specially protected natural area of local significance. But again, much to our regret, those plots, mining allotments and license areas that had been determined by the Government, by the contract earlier for these subsoil users, we could not include it accordingly in the specially protected natural area of local significance. And as of today already, no one will deploy on the lands that have been designated as SPNAs [specially protected natural areas, JFI's clarification] of local significance accordingly, since now any economic or any other activity is explicitly prohibited there.

[1:11:40] [I] Currently, we raise an issue this way before the authorized and competent bodies — the Ministry of Energy and the Ministry of Environment, Geology and Natural Resources — to include accordingly those very land plots that were licensed to subsoil users in the SPNAs. And accordingly, now the question at hand is the question of the reasonability of oil production, given that the reserves there will be proven soon, and one will have to choose between oil and water. It seems to me that the right decision will be made to the effect that water is of the utmost value over anything we have. I mean, if we put them on the scales, then water is more valuable to us, and there is an increasing understanding of that, recently [1:12:34]

Footnotes

1 Just Journalism interview on site. JFI has a copy of the recorded interview in the original Kazakh and translated to English. Akmaral Turegeldiyeva, 50, is an unemployed teacher.

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5 In Aktobe region the natural reserve that saves the Kokzhide waters will be expanded (Russian), Aktobe Times, January 11, 2024

6 Erbol Kuanov, Head of the Department of Ecology for the Aktobe region of the Ministry of Ecology and Natural Resources of the Republic of Kazakhstan, Just Journalism interview (Russian), August 20, 2024. Interview video, transcript and translation are in the possession of JFI.

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8 Almira Alishbayeva, They want to extract both oil and water from the unique source of clean water Kokzhide (Russian), Diapazon, 17.12.2024

9 Geraci, Ali, Romolt, Rossman, The Environmental Risks and Oversight of Enhanced Oil Recovery in the United States, Clean Water Action/Fund, August 2017

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17 Bekmukhambetov et al, ibid.

18 Renat Taipov, All underground waters in Kazakhstan have been left without protection and monitoring (Russian), Aktobe Times, December 23, 2024

19 Letter of the Aktobe Region Department of Natural Resources and Environmental Management No. ZhT-2025-00643841 and ZhT-2025-00643709 (Russian), March 12, 2025. A copy of the letter is in the possession of JFI.

20 The Republic of Kazakhstan, Official website of the President of the Republic of Kazakhstan. March 31, 2025.

21 Drought predicted for 2025 in Kazakhstan, Kazakh grain union, November 7, 2024

22 Kyle Ferrar, Oil and gas companies use a lot of water to extract oil in drought-stricken California, Fractracker Alliance, November 9, 2021

23 CNPC-AMG, Project for identifying and evaluating underground waters for supplying industrial-technical water to CNPC-AMG facilities in the Temir area of the Aktobe region (Russian), January 11, 2024. Document in the possession of JFI.

24 Erbol Kuanov, ibid.

25 Since reorganised into the Atyrau Region Department for Ecology and Natural Resources.

26 Article 103, point 5 (Unofficial English translation). Law adopted July 9, 2003

27 Kuanov, ibid.

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37 Hydrogen Sulfide, MPC of hydrogen sulfide (H_2S) in the air of populated areas - 0.008 mg/m3

38 Yuan, Zhang, Sun et al, Kinetics-based study on hydrogen sulfide generation and mitigation strategies in heavy oil thermal recovery, 2025

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55 Yendibayeva, ibid.

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79 VWFI was launched in 2022 by Ceres, a US-based nonprofit advocacy organization, and is run in partnership with the Government of the Netherlands.

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