



## Seasonal Analysis of the Ditch Dengizkul

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**Abstract:** the article presents the results of the hydrochemical research carried out on all currents of the marine basin. According to the seasonal samples, the amount of chlorides and sulfates is increased as a result of irrigation farming in the spring is carried out by salting.

**Keywords:** Agrobiological, hydrochemical, Secchi disk, biogen elements, capillary tubes

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**Introduction.** The rise of erosion waters in irrigated lands and the depletion of the agronomic and agrobiological impact as a result of the salinity of the land leads to a decrease in the yield of cotton and the depletion of the soil system. As a result of many years of research by scientists, it was found that the use of open horizontal collars in irrigated oases gives a good result. Collector-drains only take out mineral water from primary, secondary and most saline soils in combination with the reduction of erosion water. In recent years, as a result of the enrichment of agricultural crops with chemicals, the hydrochemical composition of the soil system has been disrupted. Due to the shortage of Water Resources, mineralization of water bodies and their damage with agrochemicals are observed. Currently, the intensity of the urbanization process is increasing the need for water, increasing the amount of contaminated water coming out of the city's water networks and factories. At the same time, effective use of water on the surface part of the Earth in the regions where water shortage is coming to the Surface, re-completion of some water installations is being carried out. In particular, mineralization collector waters were used for irrigation of goose in Khorezm and Bukhara regions. In Khorezm region, when irrigated with 3.5-4.6 g/l mineral water, the yield of cotton increased from 18 ts/to 42 ts/. In the Bukhara region, its yield was 2-2.6; 6-7.8 and 8-10 g/l of mineralization when watered with water 25; 20.8; 19 and 19.8 y/ha.

The salts and ions contained in the Collector waters are collected in the soil  $\text{HCO}_3^-$ ,  $\text{Cl}^-$ ,  $\text{SO}_4^-$ ,  $\text{Ca}^{++}$ ,  $\text{Mg}^{++}$ , and have a detrimental effect on plant growth and development. A.N Kostyakov determined the toxicity of sodium salts to the plant by the same order of  $\text{Na}_2\text{CO}_3 : \text{NaCl} : \text{Na}_2\text{SO}_4 = 5:2:1$ . V.A. Kov also identified a form close to the same layout as  $\text{Na}_2\text{CO}_3 : \text{NaCl} : \text{Na}_2\text{SO}_4 = (4-5):(2-3):1$ . Sodium carbonate is 4 times more toxic to plants than BioCarbon. Sodium salts are a strong poison for the plant in comparison with magnesium salts. According to E.Chembarisov's research, the content of collector waters in the Bukhara region is chlorinated-sulfated-magnesium-sodium. The amount of mineral solutions contained in the Collector waters largely depends on the types, types and number of chemical elements in the soil. This is mainly explained by the composition of the waters that are

extracted from the communal farm and the composition of the waters of the factory factories. The salt areas are relatively low-lying, common in areas where saline waters are close to the ground bet. The ascent through the capillary tubes in the groundwater occupies a leading place in the formation of saline deposits. It is known that irrigation lands in Bukhara region are present in Bukhara, Karakul and Karavulbazar oases in three settlements. The system of trenches was established in order to improve the melioration condition of the Abicor land here. Most of them are open system trenches. One and a half cubes every year, miles, the volume trench and the flowing water are pulled out of the Oasis. A small part of these different saline waters is poured into the Amudarya region through a large Salt Lake, the Porsunkul Basin. The remaining main part is collected in such wrecks as sea-buckthorn, Spruce, agitation-throwing lakes. The increase in the amount of minerals along the flow in the Koll the river depends on the water content of many large-small channels and collector-trenches that flow through it.

**Research methods:** water analysis in the biotechnology and ichthyology scientific laboratory of Bukhara State University and the scientific laboratory of the state of Ecology and Environmental Protection.No, it's not.Lure, Analyzed by the methods of N.S.Stroganov. Mineralization of collector water along the stream O.A. Alekin [3, 4, 5], V.N. Zhukinsky and others. According to the classifications of [6], alfa-varies from hypogalene to beta-oligogalene, that is, it is considered fresh water. In some times of the year, the amount of minerals increased and slightly approached the brine. The main reason for this is the result of water pouring into the Marine colletarium from several collars on account of a decrease in the amount of salinity in the soil, which is carried out in winter.

In the study of the physical properties of water, attention was paid to the clarity, color, temperature of water. The water has a clear, clear seasonal character. The highest indicator 2,8-3,0 meters will be observed in January February. In summer, this indicator is 0,5-1,5 meters. (According to secchi disk). The water temperature is closely related to the air temperature. During the year, the average indicator of air temperature was 20 0C, the indicator of water temperature was 15,4 0C. Another different chemical composition of water was used data from the Department of monitoring AMIMQ - environmental pollution and other scientific sources. In general, studies have not been conducted on indicator saprobes and zooplankton, which determine the quality of water, the ecological and sanitary condition of the river. For this reason, the study of the three-flow algae and zooplankton of the Dengizkul and the determination of the ecological and sanitary state of the water is one of the pressing problems of the present day seasonal samples were collected in determining the hydrochemical composition of the Dengizkul water. (Table 1)

Table 1

№	Ingredients mg/l	SUMMER			
		fishery PDK	Kagan District area high flow	Bukhara District area Marine dump medium flow (Jondor)	Karakul district Poykent lower flow
1.	Hanging items	15	58	75	40
2.	Chlorides	300	1912, 0	3650, 3	2433, 6
3.	Sulphates	100	2065,0	3842,4	1584,9
4.	Dry residue	1000	4450	8500	5500
5.	Nitrites	0,08	0,22	0,24	0,25
6.	Ion ammonium	0,05	3,6	3,8	3,9
7.	Petroleum products	0,3	n/o	n/o	n/o
8.	Phosphates		0,4	0,5	0,3
<b>SPRING MONTHS</b>					

1.	Ion ammonium		2,0		4,0
2.	Nitrites		0,15		4,0
3.	Chlorides		1783,3		0,13
4.	Sulphates		2161,4		0,24
5.	Dry residue		5500		3998,9
6.	Petroleum products		n/o		2433,6
					3004,8
					8500
					n/o
					<i>AUTUMN</i>
1.	Hanging items		60		80
2.	Chlorides		1912,0		3650,0
3.	Sulphates		2113		2607,4
4.	Dry residue		4500		3938
5.	Nitrites		0,24		9000
6.	Ion ammonium		3,7		6000
7.	Petroleum products		n/o		0,25
					0,28
					4,0
					n/o

The water content was analyzed by several indicators. The results of the study of the hydrochemical composition of the trench waters indicate that the amount of mineral substances contained in the water, as well as oxygen dissolved in the water, depends on the seasons of the year. The hanging substances contained in Dengizkul water were found to be abundant in autumn compared to spring and summer. Although it has different indications in the streams of trench water, in the spring, summer and autumn, the indicators of hanging substances are high because of the activity of phytoplankton and zooplankton. It was determined that the amount of dry residues in the sea-water dumping medium-flow water of the Bukhara District of the Dengizkul was abundant in the spring and autumn seasons, the dry residues increased as a result of the water shine due to the high air temperature in the summer and autumn seasons in the Bukhara region. The fact that the amount of chlorides contained in the sea water is very high in the spring is the result of the washing of communal water produced from the territory of the district. Biogen elements in the water are nitrogen-containing and phosphorus-containing compounds, mastered by tubers and high plants in the trench. For this reason, the amount of oxygen in the water increases, and they were stored during the seasons at the rate of 6,6 – 6,8 mg/l. The Daily indication of dissolved oxygen in the water largely depends on the intensity of photosynthesis and water aeration. The consumption rate of oxygen in the black-and-white lake water is much higher. The reason for this is the eutrophation of the lake. Where the depth of the trench is 3,5 - 4 meters, the oxygen content dissolved in water is much lower than 2,5 – 3,0 mg/l. The reason for this is the abundance of organic residues in the depths of the water and the fact that there is little or no circulation. Saturation of water to oxygen is carried out by invasion. High water temperature and high content of organic substances lead to a decrease in the amount of dissolved oxygen in water. The amount of dissolved organic substances in water is 9,8 – 20,3 mg/l, and for their oxidation, too, there will be much oxygen consumption.

**Summary:** if the amount of chlorides in the upper flow of Kagan District of the Kagan District of the Dengizkul was 1912, 0 mg/l in summer and autumn, the Bukhara District area was 3998,9 – 3,938mg/l in the Middle flow of sea (Jondor), the upper flow of chlorides in the spring and autumn months, the lower flow of Poykent.

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