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Analysis of Environmental Impacts of Produced Water

**Produce water is considered biggest waste of petroleum fields. Water production increases with the increase in maturity of reservoir requiring more consideration for treatment. In Addition, water which comes from subsurface to surface contains number of elements including heavy metal, hydrocarbons, organic material and other chemicals constituents. These all elements present in produced water can pose hazard to the environment if left untreated, so before discharging water in open pit, it is necessary to treat it or at least reduce these elements up to given national environmental quality standard (NEQS) of Pakistan.

This paper presents the evaluation of Environmental impact of produced water from gas field located in Lower Indus basin through laboratory test. According to experimental results the PH of produced water, TDS, amount of oil and grease, phenolic compounds, chloride and other components are higher in value than the given NEQS of Pakistani Government.

However, large volumes of these waters are discharged into evaporation pits or reinjected in to the earth, without treatment contaminating surface and ground waters and soils in producing field/area ultimately detrimental to livings organisms and vegetation.

In conclusion, proper handling methods are required to dispose it off considering National Environmental Quality Standards. Treatment of water from Primary to tertiary will be helpful to have less impacts as well as access to water for masses of that area.

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