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Federal Democratic Republic of Ethiopia

Dire Dawa Administration

Water Supply and Sewerage Authority

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Water	Sample	Analysis	Result
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Source: GROUND WATER WELL			Client: Dalagmal Agro Business.			
Area : Lig Liga		Well ID:	Well ID: Gidib-Jig-Jiga			
Type of water san	nple (Treated/ un):Untreated,	Depth=60m, Pum	p Position=54m,	Discharge=41/s		
Date of sampling:	30/	/09/2020				
Date of Analysis:	1/1	0/2020				
Physical paramete	ers					
Parameters			esult			
Conductivity			745			
Turbidity			3.74			
TDS		1	872			
pH			7.77			
Temperature			26.9			
Chemical parameters		(mg/l)	(meq/l)			
Calcium		60	2.994			
Calcium hardness		150				
Magnesium		110	9.053			
Magnesium hardness		451				
Iron		0.02				
Potassium		3.8	0.0978			
Fluoride		2.28				
Sulphate		260	6.408			
Chloride		475	13.395			
Sodium		300	13.05			
Sodium chloride		775				
Nitrite	N	0.532				
Marie	NO ₂	1.756				
Nitrate	N	10.3				
	NO ₃	45.32	0.73			
Ammonia	N	0.77				
	NH ₃	0.93				
	NH ₄ ⁺	1.00	0.554			
Total alkalinity a	as CaCO ₃	285				
Bicarbonate as HCO ₃		350	5.74			
Carbonate as CO ₃ -2		170	5.61			
Sodium Absorption Ratio SAR			5.32			
Residual Sodium Carbonate RSC Note: The water sample was taken and brought to the			<0(-0.697)			

Note: The water sample was taken and brought to the laboratory by the clients' Agent. According to Irrigation Water Quality

Standards (OD Negrona.	Salinity Laboratory & FAO) EC	TDS	SAR	RSC
	250	160	Up to 10	<1.25
Excellent	250-750	160-500	10-18	1.25-2.5
Good Medium	750-2250	500-1500	18-26	2.5
Bad	2250-4000	1500-2500	>26	- (<0)
Very Bad	>4000	2500	>26	-(<0)

Clients Water has the following;

EC=3745 Bad

TDS=1872 Bad

SAR=5.32 Excellent

RSC=<0 Bad or Very Bad

By: Mussca Kalil (DDWSSAL QCoratory)

Signature: ...

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To Whom It May Concern

The above analyzed water sample were sampled and sent to laboratory by the client. Water was intended to be used for irrigation after analysis; regarding the Fact Sheet of A & L Canada Laboratories, INC. It is good to have Calcium concentration higher than 2 me/l with good sodium concentration in order to minimize the effect of higher sodium with low Calcium (<2eq/l) which has an effect on a soil structure and water infiltration. Again considering the negative value of RSC indicates little risk of sodium accumulation due to offsetting levels of calcium and magnesium. Lastly value of SAR is obtained to be Excellent; therefore, as conclusion the above water can be used for irrigation purpose.

Moussea kaleal (DDWSSAL QC Chemist)

Signature:

D.D.W.S.S.A. Victor Quality Export