Soil, Water & Forage Analytical Laboratory

Oklahoma State University Division of Agricultural Sciences and Natural Resources
045 Agricultural Hall
Stillwater, OK 74078
Email: soiltesting@okstate.edu
Website: www.soiltesting.okstate.edu

WATER QUALITY REPORT

OSAGE CO EXT OFC 628 KIHEKAH SECOND FLOOR PAWHUSKA, OK 74056 (918) 287-4170	Name : Osage Nation EPA Location : SH 1	Lab ID No.: : 845432 Customer Code : 57 Sample No. : 11682 Received : 6/12/2017 Report Date : 6/13/2017

Test Results for Irrigation Water

Cations		Anions		Other	
Sodium (ppm)	257	Nitrate-N (ppm)	3.6	pH	7.3
Calcium (ppm)	200	Chloride (ppm)	465	EC (µmhos/cm)	2530
Magnesium (ppm)	41	Sulfate (ppm)	450		
Potassium (ppm)	3	Boron (ppm)	0.04		
		Bicarbonate (ppm)	131		

Derived Values		Derived Values(cont'd)	
Total Dissolved Solids (TDS in ppm)	1669.8	Sodium Percentage	45.5 %
Sodium Adsorption Ratio (SAR)	4.3	Hardness (ppm)	669.0
Potassium Adsorption Ratio (PAR)	0.0	Hardness Class	Very Hard
		Alkalinity (ppm as CaCO3)	107.4

INTERPRETATION AND REQUIREMENTS FOR *Irrigation Water*

This water is generally of sufficiently low quality that its use is considerably restricted. It may be used safely only on very well-drained permeable soils and on salt tolerant crops. It requires careful irrigation practices including applications of excess irrigation water to keep the soil leached of salt when rainfall is insufficient to provide leaching.

Good soil management practices must be used to maintain good physical structure in the soil and to maintain a high level of fertility. Use of this water on medium textured soils may result in problems if care is not exercised. This water is not recommended for heavy textured soils.

If this water is used extensively, it is recommended that a soil sample be obtained every few years from the irrigated fields to determine the extent to which sodium or salts may be accumulating and the need for special management practices.

Bruce
Signature

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918-287-2279

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WATER QUALITY REPORT

OSAGE CO EXT OFC
628 KIHEKAH
SECOND FLOOR
PAWHUSKA, OK 74056
(918) 287-4170

Name : Osage Nation EPA

Location : SH 2

Lab ID No.: : 845433
Customer Code : 57
Sample No. : 11683
Received : 6/12/2017
Report Date : 6/13/2017

Test Results for Irrigation Water

Cations		Anions		Other	
Sodium (ppm)	116	Nitrate-N (ppm)	1.5	pH	7.5
Calcium (ppm)	139	Chloride (ppm)	324	EC (µmhos/cm)	1574
Magnesium (ppm)	28	Sulfate (ppm)	97		
Potassium (ppm)	3	Boron (ppm)	0.04		
		Bicarbonate (ppm)	155		

Derived Values		Derived Values(cont'd)	
Total Dissolved Solids (TDS in ppm)	1038.8	Sodium Percentage	35.4 %
Sodium Adsorption Ratio (SAR)	2.4	Hardness (ppm)	461.2
Potassium Adsorption Ratio (PAR)	0.0	Hardness Class	Very Hard
		Alkalinity (ppm as CaCO3)	127.2

INTERPRETATION AND REQUIREMENTS FOR *Irrigation Water*

This water can be used satisfactorily for most crops if care is taken to prevent accumulation of soluble salts including sodium in the soil. Good soil management and irrigation practices should be followed. This water can be used with little danger on permeable, well-drained soils.

If this water is used extensively, it is recommended that a soil sample be obtained every few years from the irrigated fields to determine the extent to which sodium or salts may be accumulating and the need for special management practices.

Signature

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