

UNICHEM INTERNATIONAL
P.O. BOX 1499 707 NORTH LEECH STREET
HOBBS, NEW MEXICO 88240

Zia Energy, Inc.
Box 2219
Hobbs , NM 88240

Report Date: April 22, 1991
Lab In Date: April 11, 1991
Sample Date: April 11, 1991

Dear Brian Nelson

Listed below please find our water analysis report from Simmons , #1 Drinkard :

Specific Gravity: 1.102
Total Dissolved Solids: 142825
PH: 7.20
Ionic Strength: 2.782

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CATIONS:

		mg/liter
Calcium:	(Ca++)	7360
Magnesium:	(Mg++)	2333
Sodium:	(Na+)	44485
Iron (Total)	(Fe++)	31.00
Barium	(Ba++)	.20
Manganese:	(Mn++)	0.00
Resistivity:		

ANIONS:

Bicarbonate:	(HCO3-)	146
Carbonate:	(CO3--)	0
Hydroxide:	(OH-)	0
Sulfate:	(SO4--)	501
Chloride:	(Cl-)	88000

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GASES:

Carbon Dioxide:	(CO2)	*****
Oxygen:	(O2)	*****
Hydrogen Sulfide:	(H2S)	*****

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SCALE INDEX (Positive Value Indicates Scale Tendency) * indicates tests were not run.

	Temperature	CaCO3 SI	CaSO4 SI
86F	30.0C	.82	-21.09
104F	40.0C	1.03	-20.90
122F	50.0C	1.30	-20.43
140F	60.0C	1.60	-20.04
168F	70.0C	1.93	-20.03
176F	80.0C	2.31	-20.31

If you have any questions or require further information, please contact us.

Sincerely,


Sharon Wright

Laboratory Technician

cc:

bc: Joe Hay
John Offutt

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APR 23 1991

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HOBBS (1177)

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Dear Brian Nelson

Listed below please find our water analysis report from Simmons, #1 Tubb

Specific Gravity: 1.018
Total Dissolved Solids: 24829
PH: 6.80
Ionic Strength: .498

CATIONS:

		mg/liter
Calcium:	(Ca++)	1760
Magnesium:	(Mg++)	437
Sodium:	(Na+)	7106
Iron (Total)	(Fe++)	5.80
Barium	(Ba++)	.80
Manganese:	(Mn++)	0.00
Resistivity:		

ANIONS:

Bicarbonate:	(HCO3-)	220
Carbonate:	(CO3--)	0
Hydroxide:	(OH-)	0
Sulfate:	(SO4--)	307
Chloride:	(Cl-)	15000

GASES:

Carbon Dioxide:	(CO2)	*****
Oxygen:	(O2)	*****
Hydrogen Sulfide:	(H2S)	*****

SCALE INDEX (Positive Value Indicates Scale Tendency) * indicates tests were not run.

Temperature	CaCO3 SI	CaSO4 SI
86F 30.0C	-.09	-29.65
104F 40.0C	.16	-29.91
122F 50.0C	.41	-30.17
140F 60.0C	.69	-29.65
168F 70.0C	1.02	-28.61
176F 80.0C	1.36	-27.01

If you have any questions or require further information, please contact us.

Sincerely,


Laboratory Technician

cc:

cc: Joe Hay
John Offutt

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APR 28 1991

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HOLLIS OFFICE

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Zia Energy, Inc.
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Hobbs , NM 88240

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Dear Brian Nelson

Listed below please find our water analysis report from Simmons , #1 CDH (Tubb & Drk) :

Specific Gravity: 1.039
Total Dissolved Solids: 54383
PH: 6.60
Ionic Strength: 1.110

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CATIONS:

		mg/liter
Calcium:	(Ca++)	3680
Magnesium:	(Mg++)	1409
Sodium:	(Na+)	15037
Iron (Total)	(Fe++)	363.00
Barium	(Ba++)	.90
Manganese:	(Mn++)	0.00
Resistivity:		

ANIONS:

Bicarbonate:	(HCO3-)	659
Carbonate:	(CO3--)	0
Hydroxide:	(OH-)	0
Sulfate:	(SO4--)	598
Chloride:	(Cl-)	33000

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GASES:

Carbon Dioxide:	(CO2)	*****
Oxygen:	(O2)	*****
Hydrogen Sulfide:	(H2S)	*****

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SCALE INDEX (Positive Value Indicates Scale Tendency) * indicates tests were not run.

Temperature		CaCO3 SI	CaSO4 SI
86F	30.0C	.27	-24.89
104F	40.0C	.48	-24.73
122F	50.0C	.74	-24.40
140F	60.0C	1.09	-23.91
168F	70.0C	1.43	-23.25
176F	80.0C	1.78	-21.76

If you have any questions or require further information, please contact us.

Sincerely,


Sharon Wright
Laboratory Technician

cc:

bc: Joe Hay
John Offutt

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APR 23 1991

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