Inspection Report For Well: UT20736 - 07416

U.S. Environmental Protection Agency
Underground Injection Control Program, 8ENF-T
999 18th Street, Suite 300, Denver, CO 80202-2466

This form was printed on 9/24/2013

INSPECTOR(S): Lead: Roberts, Sarah — Date: ~~10~~ 12/10/2013

Others: Ajayi, Christopher — Time: 2:19 am / pm

OPERATOR (only if different): _____

REPRESENTATIVE(S): Chad Stevinson

PRE-INSPECTION REVIEW

Petroglyph Operating Company, Inc

Well Name:	Ute Tribal 30-02		
Well Type:	Enhanced Recovery (2R)		
Operating Status:	AC (ACTIVE) as of 7/23/2007		
Oil Field:	Antelope Creek (Duchesne)		
Location:	NWNE S30 T5S R3W		
Indian Country:	X, Uintah and Ouray		
Last Inspection:	8/29/2012	***Allowable Inj Pressure:***	1440 /
Last MIT:	Pass 2/3/2012	***Annulus Pressure From Last MIT:***	1010

BLACK = POSSIBLE VIOLATION GREY = DATA MISSING

INSPECTION TYPE: **(Select One)**

- [ ] Construction / Workover
- [ ] Plugging
- [ ] Post-Closure
- [ ] Response to Complaint
- [x] Routine
- [ ] Witness MIT
- [ ] Other

ICIS Entered
Date 1/2/14
Initials DB

OBSERVED VALUES:

Tubing Gauge:	[x] Yes [ ] No	Pressure: U: 1545 / L: ____ psig Gauge Range: Scada psig	Gauge Owner:	[ ] EPA [x] Operator
Annulus Gauge:	[x] Yes [ ] No	Pressure: 0 psig Gauge Range: opened psig	Gauge Owner:	[x] EPA [ ] Operator
Bradenhead Gauge:	[ ] Yes [ ] No	Pressure: ____ psig Gauge Range: ____ psig	Gauge Owner:	[ ] EPA [ ] Operator
Pump Gauge:	[ ] Yes [ ] No	Pressure: ____ psig Gauge Range: ____ psig	Gauge Owner:	[ ] EPA [ ] Operator

Operating Status: (Select One)
- [x] Active
- [ ] Being Reworked
- [ ] Not Injecting
- [ ] Production
- [ ] Plugged and Abandoned
- [ ] Under Construction

U2 Entered
Date 12/17/13
Initial SB

GREEN | BLUE

See page 2 for photos, comments, and site conditions.

Inspection Report For Well: UT20736 - 07416 (PAGE 2)

PHOTOGRAPHS: ☒ Yes ☐ No List of photos taken: "dust" blown @ workover rig

Comments and site conditions observed during inspection:

Workover rig on site.
two pits with "dust" being blown into air above them. I asked what was being emmitted from the pipe and Chad Stevinson said "dust"

GPS: GPS File ID: _____

Signature of EPA Inspector(s): _____ _____ _____

☐ Data Entry ☐ Compliance Staff ☐ Hard Copy Filing

NOTICE OF INSPECTION

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII, 999 18TH STREET - SUITE 500
DENVER, COLORADO 80202-2405

Date: 12/16/13
Hour: 8:00a

Notice of inspection is hereby given according to Section 1445(b) of the Safe Drinking Water Act (42 U.S.C. §300f et seq.).

Firm Name: Petroglyph Operating, Inc.

Firm Address: Roosevelt, UT, Antelope Creek Oil Field

REASON FOR INSPECTION:

For the purpose of inspecting records, files, papers, processes, controls and facilities, and obtaining samples to determine whether the person subject to an applicable underground injection control program has acted or is acting in compliance with the Safe Drinking Water Act and any applicable condition of permit or rule authorization.

SECTION 1445(b) of the SAFE DRINKING WATER ACT is quoted below:

Section 1445(b)(1): Except as provided in Paragraph (2), the Administrator, or representatives of the Administrator duly designated by him, upon presenting appropriate credentials, and a written notice to any supplier of water or other person subject to (a), or person subject (A) a national primary drinking water regulation prescribed under Section 1412(B) an applicable Underground Injection Control Program, or (C) any requirement to monitor an unregulated contaminant pursuant to subsection (a), or person in charge of any of the property of such supplier or other person referred to in clause (A), (B), or (C), is authorized to enter any establishment, ... facility, or other property of such supplier or other person in order to determine whether such supplier or other person has acted or is acting in compliance with this title, including for this purpose, inspection, at reasonable times, of records, files, papers, processes, controls, and facilities, or in order to test any feature of a public water system, including its raw water source. The Administrator or the Comptroller General (or any representative designated by either) shall have access for the purpose of audit and examination to any records, reports, or information of a grantee which are required to be maintained under subsection (a) or which are pertinent to any financial assistance under this title.

Sarah Roberts
Inspector's Name & Title (Print)

Inspector's Signature

EPA R8 3560-1 (8-89)

Original - Regional Office Copy
Yellow Copy - Operator Copy

Petroglyph Operating Well # UT20736-07416 – December 10, 2013; 2:19 pm Well Name: Ute Tribal 30-02

OFFICIAL IMAGE RECORD, UIC PROGRAM REGION VIII, U.S. ENVIRONMENTAL PROTECTION AGENCY

****

SUBJECT/DESCRIPTION: "Dust" blown over pits at rig on nearby production well

INDIAN COUNTRY: Uintah and Ouray Reservation **STATE: UT**

Note: THIS IMAGE HAS NOT BEEN CHANGED, ALTERED OR MANIPULATED IN ANY WAY

Signature of Photographer: **Date** 12/17/13

OMB No. 2040-0042 Approval Expires 11/30/2014

EPA

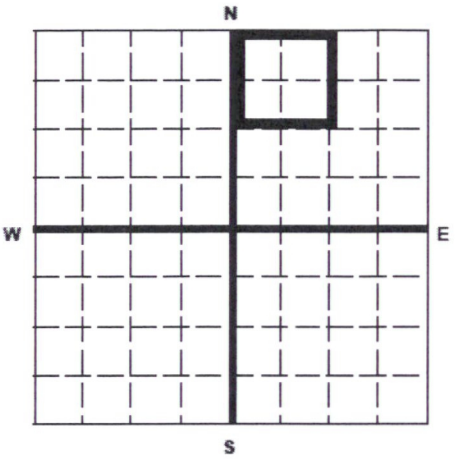
United States Environmental Protection Agency
Washington, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

Name and Address of Existing Permittee
Petroglyph Operating Company, Inc. 2258
P.O. Box 7608
Boise, Idaho 83709

Name and Address of Surface Owner
Ute Indian Tribe
P.O. Box 70
Ft. Duchesne, Utah, 84026

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Duchesne	UT2736-~~04434~~ 07416

Surface Location Description
___ 1/4 of ___ 1/4 of NW 1/4 of NE 1/4 of Section 30 Township 5S Range 3W

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 660 ft. frm (N/S) N Line of quarter section
and 1980 ft. from (E/W) E Line of quarter section.

U2 Entered
Date 3/3/16
Initial DB

WELL ACTIVITY	TYPE OF PERMIT
[ ] Brine Disposal	[ ] Individual
[X] Enhanced Recovery	[X] Area
[ ] Hydrocarbon Storage	Number of Wells 111

Lease Name Ute Indian Tribe Well Number UTE TRIBAL 30-02

		INJECTION PRESSURE		TOTAL VOLUME INJECTED		TUBING – CASING ANNULUS PRESSURE (OPTIONAL MONITORING)	
MONTH	YEAR	AVERAGE PSIG	MAXIMUM PSIG	BBL	MCF	MINIMUM PSIG	MAXIMUM PSIG
January	15	1515	1563	233		0	0
February	15	1565	1586	300		0	0
March	15	1305	1592	380		0	0
April	15	1430	1539	788		0	0
May	15	1571	1582	556		0	0
June	15	1582	1598	470		0	0
July	15	1573	1586	451		0	0
August	15	1557	1570	466		0	0
September	15	1553	1578	455		0	0
October	15	1564	1578	539		0	0
November	15	1578	1584	521		0	0
December	15	1572	1579	608		0	0

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed
Chad Stevenson, Water Facilities Supervisor		02/08/2016

GREEN BLUE CBI TAB

EPA Form 7520-11 (Rev. 12-11)

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

multi-chem
A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company:	**PETROGLYPH OPERATING CO INC - EBUS**	Sales Rep:	**James Patry**
Well Name:	**UTE TRIBAL 30-02 INJ, DUCHESNE**	Lab Tech:	**Michele Pike**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2016**		
Sample ID:	**WA-327681**		

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics

Test Date:	1/13/2016
System Temperature 1 (°F):	60
System Pressure 1 (psig):	2000
System Temperature 2 (°F):	180
System Pressure 2 (psig):	50
Calculated Density (g/ml):	1.0084
pH:	8.50
Calculated TDS (mg/L):	16080.01
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	0.00
Tot. SuspendedSolids(mg/L):	
Corrosivity(LanglierSat.Indx)	0.00
Alkalinity:	

Analysis @ Properties in Sample Specifics

Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	5801.41	Chloride (Cl):	8000.00
Potassium (K):	33.96	Sulfate (SO_4):	10.00
Magnesium (Mg):	26.04	Bicarbonate (HCO_3):	2074.00
Calcium (Ca):	56.43	Carbonate (CO_3):	
Strontium (Sr):	5.44	Acetic Acid (CH_3COO)	
Barium (Ba):	9.48	Propionic Acid (C_2H_5COO)	
Iron (Fe):	29.19	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	11.74	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.63	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.06	Silica (SiO_2):	21.63
Aluminum (Al):	0.04	Calcium Carbonate ($CaCO_3$):	
Lithium (Li):	2.64	Phosphates (PO_4):	8.01
Boron (B):	4.19	Oxygen (O_2):	
Silicon (Si):	10.11		

Notes:

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	1.90	47.93	0.00	0.00	0.00	0.00	3.73	21.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
167.00	267.00	1.82	47.53	0.00	0.00	0.00	0.00	3.64	21.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	483.00	1.76	47.18	0.00	0.00	0.00	0.00	3.56	21.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	700.00	1.69	46.80	0.00	0.02	0.00	0.00	3.47	21.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
127.00	917.00	1.64	46.38	0.06	0.46	0.00	0.00	3.38	21.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	1133.00	1.59	45.94	0.13	0.94	0.00	0.00	3.30	21.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	1350.00	1.54	45.49	0.21	1.46	0.00	0.00	3.21	21.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.00	1567.00	1.49	45.03	0.31	2.01	0.00	0.00	3.12	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	1783.00	1.46	44.58	0.42	2.57	0.00	0.00	3.03	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.00	2000.00	1.42	44.14	0.55	3.13	0.00	0.00	2.95	21.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

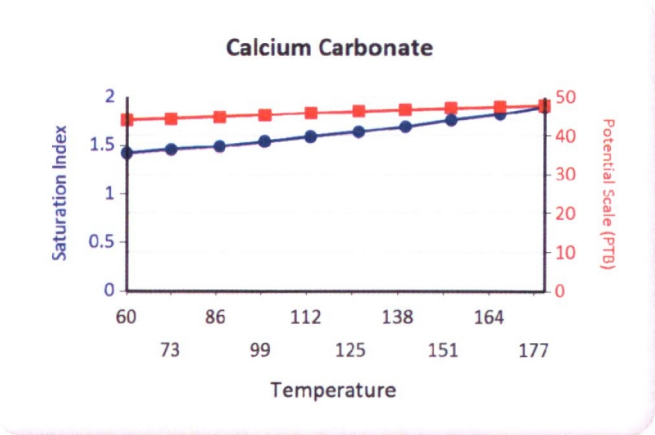
multi-chem®
A HALLIBURTON SERVICE

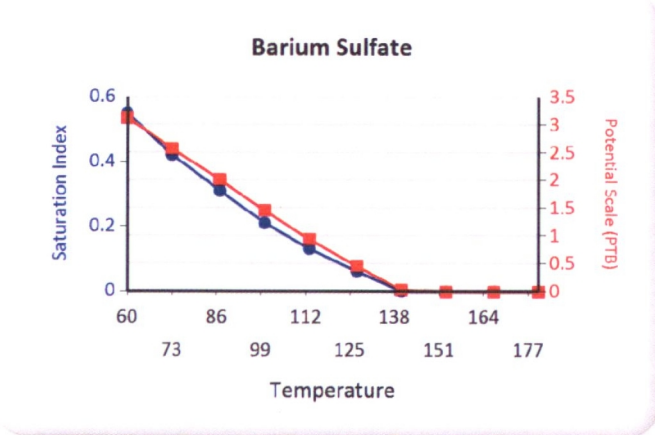
Water Analysis Report

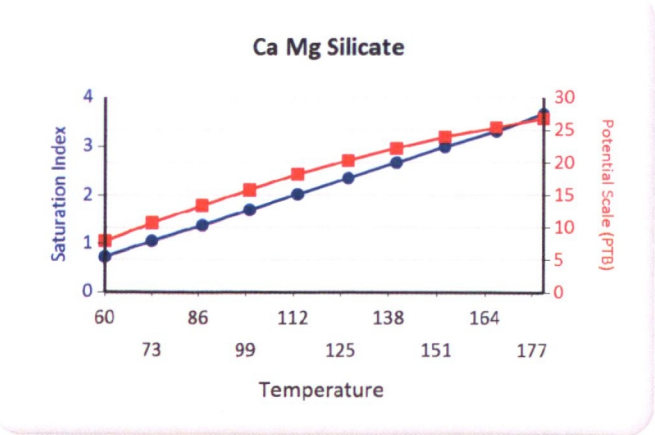
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	3.19	7.89	0.00	0.00	6.62	44.76	3.66	26.78	13.87	22.70
167.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	3.05	7.89	0.00	0.00	6.01	41.62	3.30	25.37	13.44	22.70
153.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	2.91	7.88	0.00	0.00	5.44	38.81	2.98	23.94	13.06	22.70
140.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	2.76	7.88	0.00	0.00	4.87	35.73	2.66	22.24	12.68	22.69
127.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	2.60	7.87	0.00	0.00	4.30	32.42	2.34	20.32	12.30	22.69
113.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	2.42	7.86	0.00	0.00	3.72	28.92	2.01	18.20	11.93	22.69
100.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	2.24	7.84	0.00	0.00	3.13	25.20	1.69	15.91	11.57	22.68
87.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04	7.81	0.00	0.00	2.54	21.24	1.37	13.43	11.21	22.68
73.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	1.83	7.76	0.00	0.00	1.94	16.97	1.05	10.76	10.85	22.67
60.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	1.61	7.68	0.00	0.00	1.33	12.29	0.72	7.88	10.50	22.65

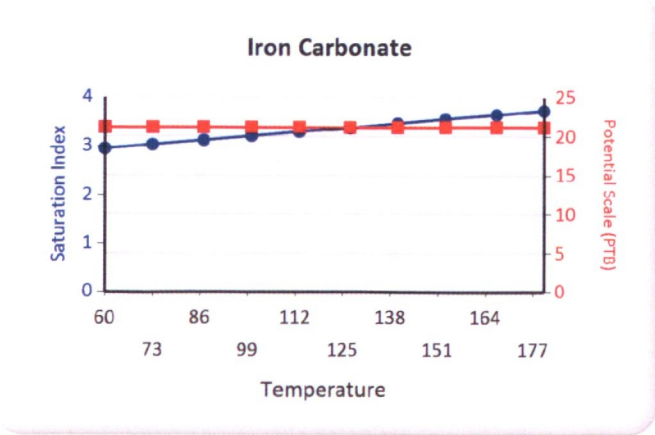
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

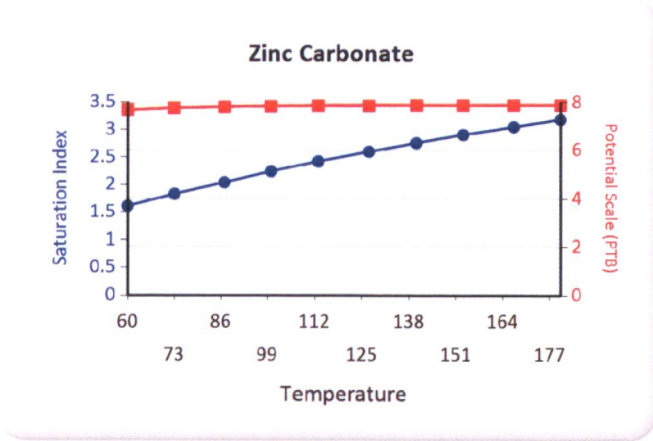
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

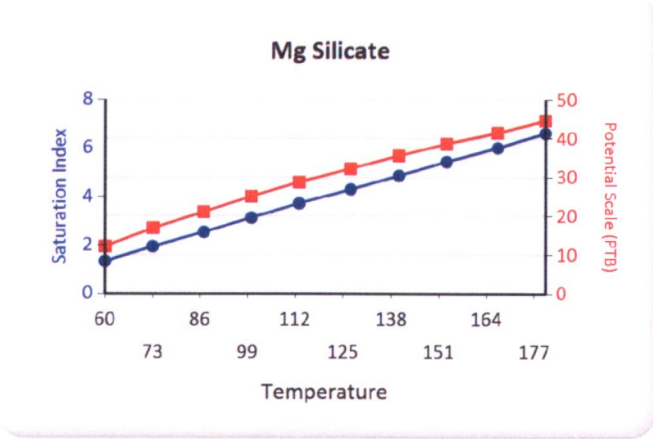


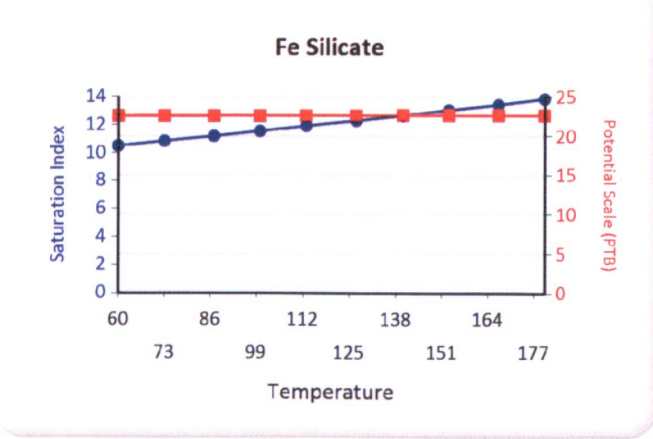







Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
3.5
3
2.5
2
1.5
1
0.5
0
8
6
4
2
0
60
86
112
138
164
73
99
125
151
177


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
8
6
4
2
0
50
40
30
20
10
0
60
86
112
138
164
73
99
125
151
177


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
14
12
10
8
6
4
2
0
25
20
15
10
5
0
60
86
112
138
164
73
99
125
151
177

GREEN	BLUE	CBI
	2	

Mechanical Integrity Test
Tubing/Casing Annulus Pressure Test

U.S. Environmental Protection Agency
Underground Injection Control Program
1595 Wynkoop Street, Denver, CO 80202

EPA Witness: _____ Date: 2 / 1 / 17
Test conducted by: CHAD STEVENSON
Others present: _____

Well Name: 30-02 UT 20736-07416 **Type:** ER SWD **Status:** AC TA UC
Field: ANTELOPE CREEK
Location: 30-02 **Sec:** ____ **T** ____ **N / S R** ____ **E / W County:** DUCHESNE **State:** UT
Operator: PETROGLYPH ENERGY
Last MIT: ____ / ____ / ____ **Maximum Allowable Pressure:** _____ **PSIG**

Regularly scheduled test? [X] Yes [ ] No
Initial test for permit? [ ] Yes [ ] No
Test after well rework? [ ] Yes [ ] No

U2 Entered
Date 3/20/17
Initial DB

Well injecting during test? If Yes, rate: 18 **bpd**
Pre-test annulus pressure: _____ **psig**

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING		**PRESSURE RECORD**	
Initial Pressure	1545 psig	psig	psig
End of test pressure	1545 psig	psig	psig
CASING / TUBING ANNULUS		**PRESSURE RECORD**	
0 minutes	990 psig	psig	psig
5 minutes	990 psig	psig	psig
10 minutes	990 psig	psig	psig
15 minutes	990 psig	psig	psig
20 minutes	990 psig	psig	psig
25 minutes	990 psig	psig	psig
30 minutes	990 psig	psig	psig
5 Hours ~~minutes~~	990 psig	psig	psig
_____ minutes	psig	psig	psig
RESULT	[ ] Pass [ ] Fail	[ ] Pass [ ] Fail	[ ] Pass [ ] Fail

Does the annulus pressure build back up after the test ? **If Yes,** _____ **psig.**

CALIBRATED CHARTS
MW-MP 2000
PRINTED IN U.S.A.
7 A.M.
8 A.M.
9
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
12 MIDNIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.

OMB No. 2040-0042 Approval Expires 11/30/2014

EPA

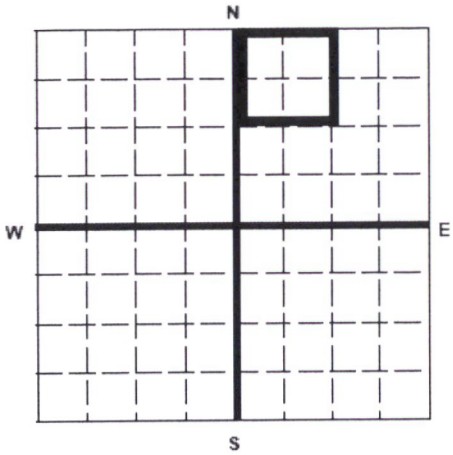
United States Environmental Protection Agency
Washington, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

Name and Address of Existing Permittee
Petroglyph Operating Company, Inc. 2258
P.O. Box 7608
Boise, Idaho 83709

Name and Address of Surface Owner
Ute Indian Tribe
P.O. Box 70
Ft. Duchesne, Utah, 84026

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Duchesne	UT2736-07416

Surface Location Description
___ 1/4 of ___ 1/4 of NW 1/4 of NE 1/4 of Section 30 Township 5S Range 3W

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 660 ft. frm (N/S) N Line of quarter section
and 1980 ft. from (E/W) E Line of quarter section.

WELL ACTIVITY
- [ ] Brine Disposal
- [X] Enhanced Recovery
- [ ] Hydrocarbon Storage

TYPE OF PERMIT
- [ ] Individual
- [X] Area

Number of Wells 111

Lease Name Ute Indian Tribe Well Number UTE TRIBAL 30-02

		INJECTION PRESSURE		TOTAL VOLUME INJECTED		TUBING – CASING ANNULUS PRESSURE (OPTIONAL MONITORING)	
MONTH	YEAR	AVERAGE PSIG	MAXIMUM PSIG	BBL	MCF	MINIMUM PSIG	MAXIMUM PSIG
January	16	1555	1564	473		0	0
February	16	1568	1589	374		0	0
March	16	1540	1595	428		0	0
April	16	1553	1601	333		0	0
May	16	1555	1596	263		0	0
June	16	1581	1604	352		0	0
July	16	1556	1570	332		0	0
August	16	1580	1593	335		0	0
September	16	1518	1554	181		0	0
October	16	1517	1532	319		0	0
November	16	1530	1610	262		0	0
December	16	1576	1596	489		0	0

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibliity of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed
Chad Stevenson, Water Facilities Supervisor		03/21/2017

U2 Entered
Date 4/7/17
Initial B

GREEN BLUE CB
TAB 2

EPA Form 7520-11 (Rev. 12-11)

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

multi-chem
A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company:	**PETROGLYPH OPERATING CO INC - EBUS**	Sales Rep:	**James Patry**
Well Name:	**UTE TRIBAL 30-02 INJ, DUCHESNE**	Lab Tech:	**Kaitlyn Natelli**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2017**		
Sample ID:	**WA-345349**		

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics

Test Date:	1/25/2017
System Temperature 1 (°F):	300
System Pressure 1 (psig):	2000
System Temperature 2 (°F):	130
System Pressure 2 (psig):	50
Calculated Density (g/ml):	1.0038
pH:	8.40
Calculated TDS (mg/L):	9350.85
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	10.00
Tot. SuspendedSolids(mg/L):	
Corrosivity(LanglierSat.Indx)	0.00
Alkalinity:	

Analysis @ Properties in Sample Specifics

Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	3125.74	Chloride (Cl):	3500.00
Potassium (K):	23.56	Sulfate (SO_4):	70.00
Magnesium (Mg):	14.29	Bicarbonate (HCO_3):	2501.00
Calcium (Ca):	28.20	Carbonate (CO_3):	
Strontium (Sr):	4.21	Hydroxide(HO):	
Barium (Ba):	12.69	Acetic Acid (CH_3COO)	
Iron (Fe):	34.49	Propionic Acid (C_2H_5COO)	
Zinc (Zn):	16.29	Butanoic Acid (C_3H_7COO)	
Lead (Pb):	0.05	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Ammonia NH_3:		Fluoride (F):	
Manganese (Mn):	0.16	Bromine (Br):	
Aluminum (Al):	0.20	Silica (SiO_2):	20.17
Lithium (Li):	2.91	Calcium Carbonate ($CaCO_3$):	
Boron (B):	4.12	Phosphates (PO_4):	12.72
Silicon (Si):	9.43	Oxygen (O_2):	

Notes:

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
130.00	50.00	1.49	23.45	1.27	7.10	4.57	9.06	3.75	25.07	0.00	0.00	0.00	0.00	0.00	0.00	11.71	8.51
149.00	267.00	1.55	23.60	1.18	6.99	4.51	9.06	3.84	25.07	0.00	0.00	0.00	0.00	0.00	0.00	11.45	8.51
168.00	483.00	1.62	23.78	1.10	6.88	4.48	9.06	3.93	25.07	0.00	0.00	0.00	0.00	0.00	0.00	11.23	8.51
187.00	700.00	1.70	23.95	1.04	6.79	4.48	9.06	4.03	25.07	0.00	0.00	0.00	0.00	0.00	0.00	11.03	8.51
206.00	917.00	1.80	24.10	1.00	6.72	4.50	9.06	4.11	25.08	0.00	0.00	0.00	0.00	0.00	0.00	10.87	8.51
224.00	1133.00	1.90	24.23	0.98	6.66	4.53	9.06	4.20	25.08	0.00	0.00	0.00	0.00	0.00	0.00	10.72	8.51
243.00	1350.00	2.00	24.34	0.96	6.64	4.59	9.06	4.28	25.08	0.00	0.00	0.00	0.00	0.00	0.00	10.60	8.51
262.00	1567.00	2.12	24.42	0.96	6.63	4.65	9.06	4.35	25.08	0.00	0.00	0.00	0.00	0.00	0.00	10.49	8.51
281.00	1783.00	2.24	24.49	0.97	6.64	4.73	9.06	4.42	25.08	0.00	0.00	0.00	0.00	0.00	0.00	10.40	8.51
300.00	2000.00	2.36	24.54	0.98	6.66	4.82	9.06	4.49	25.08	0.00	0.00	0.00	0.00	0.00	0.00	10.32	8.51

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

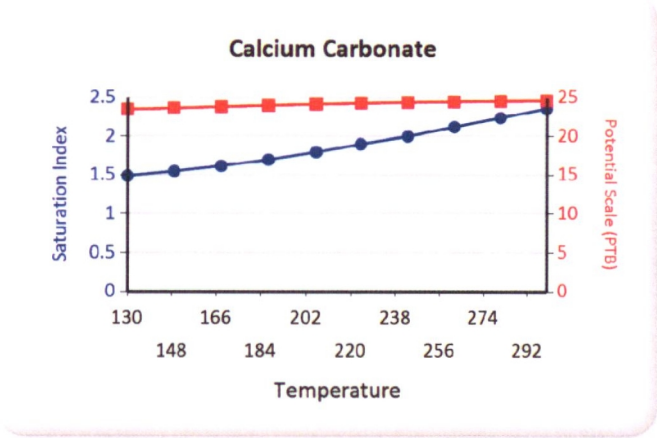
multi-chem®
A HALLIBURTON SERVICE

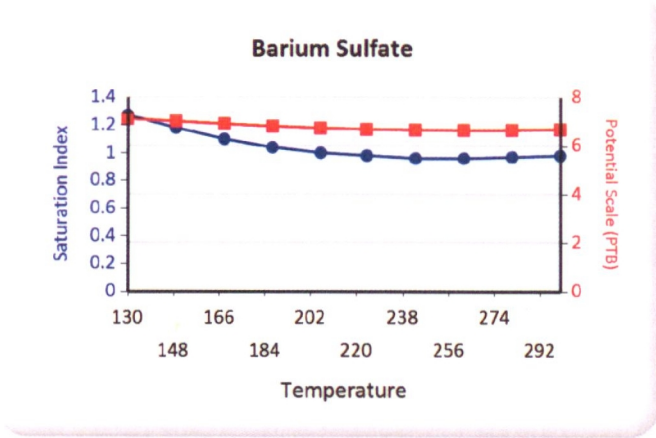
Water Analysis Report

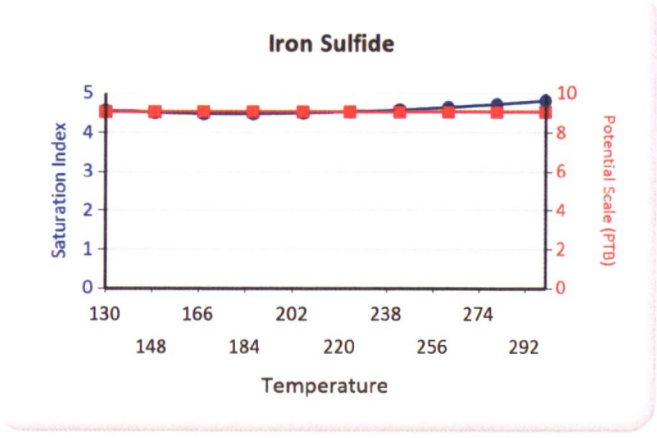
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
130.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	2.99	10.94	10.91	0.02	3.42	20.59	1.68	14.27	12.70	26.81
149.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	3.20	10.95	10.47	0.02	4.15	23.18	2.08	16.86	13.15	26.82
168.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	3.39	10.95	10.09	0.02	4.93	25.33	2.51	19.57	13.66	26.82
187.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	3.56	10.95	9.75	0.02	5.69	26.75	2.94	21.91	14.18	26.82
206.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	3.72	10.95	9.45	0.02	6.45	27.59	3.37	23.77	14.72	26.82
224.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	3.87	10.95	9.18	0.02	7.20	28.05	3.80	25.12	15.26	26.82
243.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	3.99	10.95	8.94	0.02	7.93	28.29	4.23	26.01	15.80	26.82
262.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	4.11	10.95	8.73	0.02	8.64	28.42	4.65	26.55	16.33	26.82
281.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	4.20	10.95	8.55	0.02	9.32	28.48	5.05	26.86	16.86	26.82
300.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	10.95	8.38	0.02	9.98	28.51	5.44	27.03	17.37	26.82

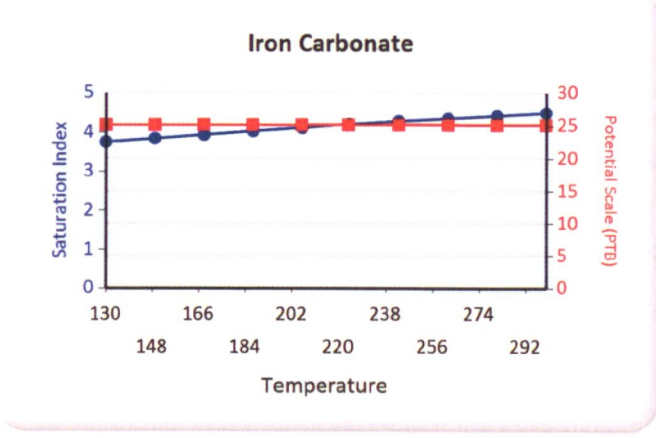
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

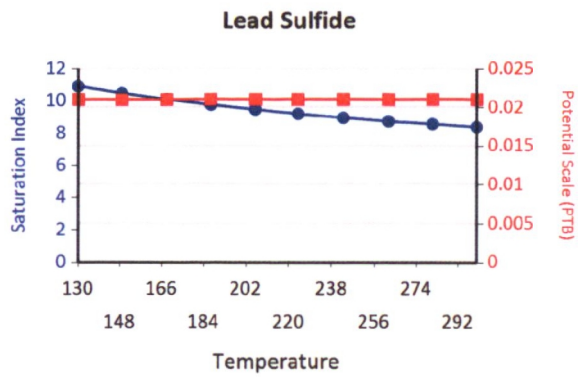
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

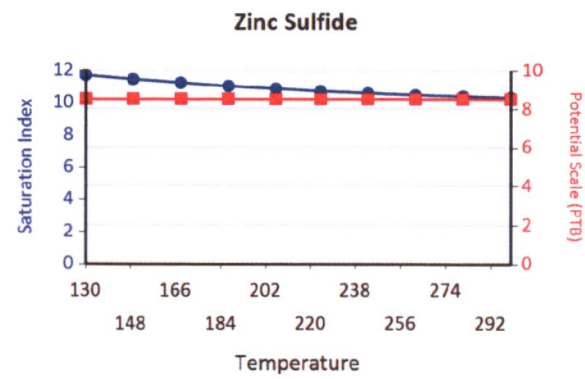


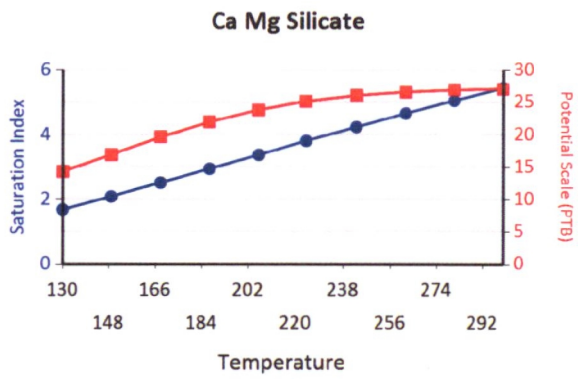


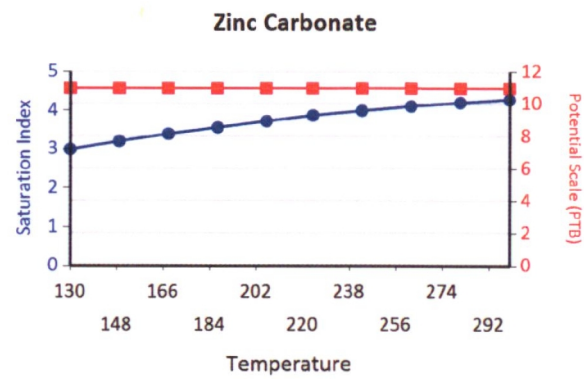


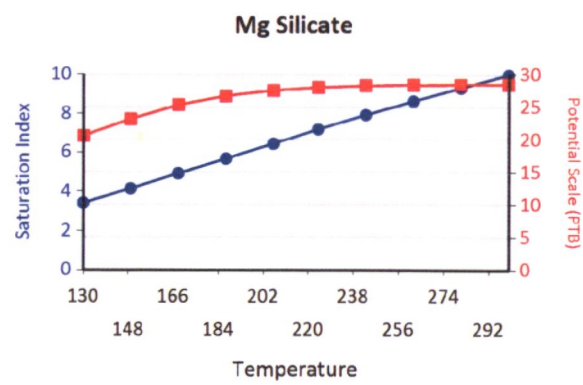


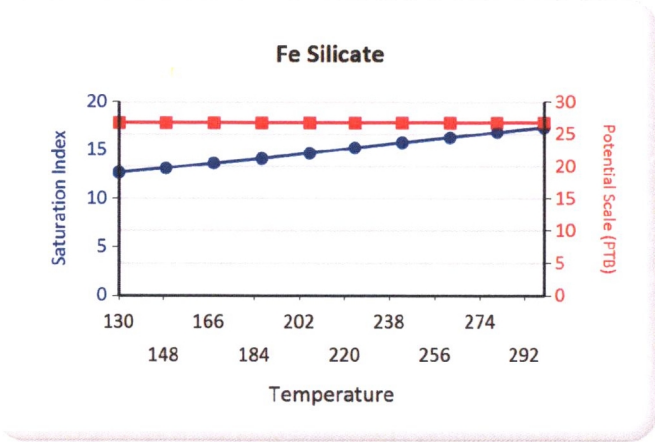

Lead Sulfide
Saturation Index
Potential Scale (PTB)
Temperature
130 166 202 238 274
148 184 220 256 292


Zinc Sulfide
Saturation Index
Potential Scale (PTB)
Temperature
130 166 202 238 274
148 184 220 256 292


Ca Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
130 166 202 238 274
148 184 220 256 292


Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
130 166 202 238 274
148 184 220 256 292


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
130 166 202 238 274
148 184 220 256 292


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
20
15
10
5
0
30
25
20
15
10
5
0
130
166
202
238
274
148
184
220
256
292

OMB No. 2040-0042 Approval Expires 12/31/2011

EPA

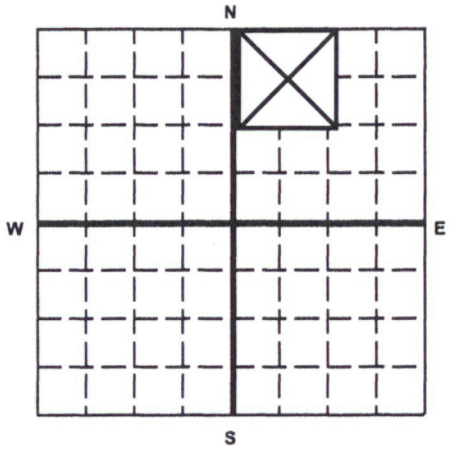
United States Environmental Protection Agency
Washington, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

Name and Address of Existing Permittee
Petroglyph Operating Company, Inc. 2258
P.O. Box 7608
Boise, Idaho 83709

Name and Address of Surface Owner
Ute Indian Tribe
P.O. Box 70
Ft. Duchesne, Utah 84026

Locate Well and Outline Unit on Section Plat - 640 Acres



State	County	Permit Number
Utah	Duchesne	UT2736-07416

Surface Location Description
___ 1/4 of ___ 1/4 of NW 1/4 of NE 1/4 of Section 30 Township 5S Range 3W

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface Location 660 ft. frm (N/S) N Line of quarter section
and 1980 ft. from (E/W) E Line of quarter section.

WELL ACTIVITY
- [ ] Brine Disposal
- [x] Enhanced Recovery
- [ ] Hydrocarbon Storage

TYPE OF PERMIT
- [ ] Individual
- [x] Area

Number of Wells 111

Lease Name Ute Indian Tribe Well Number UTE TRIBAL 30-02

MONTH	YEAR	INJECTION PRESSURE AVERAGE PSIG	INJECTION PRESSURE MAXIMUM PSIG	TOTAL VOLUME INJECTED BBL	TOTAL VOLUME INJECTED MCF	TUBING -- CASING ANNULUS PRESSURE (OPTIONAL MONITORING) MINIMUM PSIG	TUBING -- CASING ANNULUS PRESSURE (OPTIONAL MONITORING) MAXIMUM PSIG
January	13	1417	1601	302		0	0
February	13	1567	1592	324		0	0
March	13	1544	1582	288		0	0
April	13	1552	1560	369		0	0
May	13	1564	1590	419		0	0
June	13	1557	1591	257		0	0
July	13	1181	1601	196		0	0
August	13	1519	1577	380		0	0
September	13	1564	1597	356		0	0
October	13	1562	1589	335		0	0
November	13	1574	1579	448		0	0
December	13	1526	1577	332		0	0

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title *(Please type or print)*	Signature	Date Signed
Chad Stevenson, Water Facilities Supervisor		2/11/2014

EPA Form 7520-11 (Rev. 12-08)

TAB

U2 Entered
Date 3/21/14
Initial DB

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

multi-chem®
A HALLIBURTON SERVICE

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **PETROGLYPH ENERGY INC**
Well Name: **UTE TRIBAL 30-02 INJ**
Sample Point: **Wellhead**
Sample Date: **1/8/2014**
Sample ID: **WA-263020**

Sales Rep: **James Patry**
Lab Tech: **Gary Winegar**

Scaling potential predicted using ScaleSoftPitzer from Brine Chemistry Consortium (Rice University)

Sample Specifics	
Test Date:	1/15/2014
System Temperature 1 (°F):	180
System Pressure 1 (psig):	1300
System Temperature 2 (°F):	60
System Pressure 2 (psig):	15
Calculated Density (g/ml):	1.005
pH:	8.50
Calculated TDS (mg/L):	10840.23
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	0.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	3792.13	Chloride (Cl):	5000.00
Potassium (K):	68.00	Sulfate (SO_4):	143.00
Magnesium (Mg):	19.00	Bicarbonate (HCO_3):	1708.00
Calcium (Ca):	50.00	Carbonate (CO_3):	
Strontium (Sr):	5.00	Acetic Acid (CH_3COO)	
Barium (Ba):	2.90	Propionic Acid (C_2H_5COO)	
Iron (Fe):	30.00	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.42	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.09	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.29	Silica (SiO_2):	21.40

Notes:
B=5 Al=.2 Li=.94

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	1.53	39.40	1.44	1.66	0.00	0.00	3.08	21.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.00	157.00	1.54	39.35	1.29	1.64	0.00	0.00	3.14	21.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.00	300.00	1.56	39.63	1.17	1.61	0.00	0.00	3.21	21.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	443.00	1.58	39.93	1.05	1.57	0.00	0.00	3.28	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	585.00	1.61	40.25	0.96	1.54	0.00	0.00	3.35	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126.00	728.00	1.64	40.58	0.87	1.49	0.00	0.00	3.41	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.00	871.00	1.68	40.91	0.80	1.45	0.00	0.00	3.48	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
153.00	1014.00	1.72	41.23	0.74	1.41	0.00	0.00	3.54	21.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
166.00	1157.00	1.76	41.54	0.68	1.37	0.00	0.00	3.60	21.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.00	1300.00	1.81	41.83	0.64	1.33	0.00	0.00	3.66	21.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Multi-Chem Analytical Laboratory
1553 East Highway 40
Vernal, UT 84078

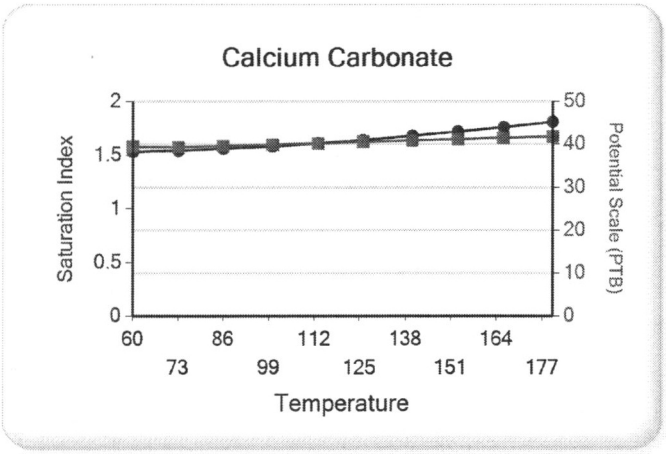
multi-chem®
A HALLIBURTON SERVICE

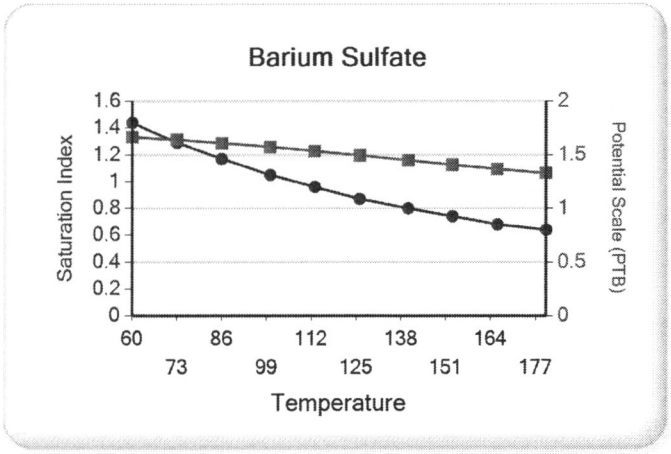
Water Analysis Report

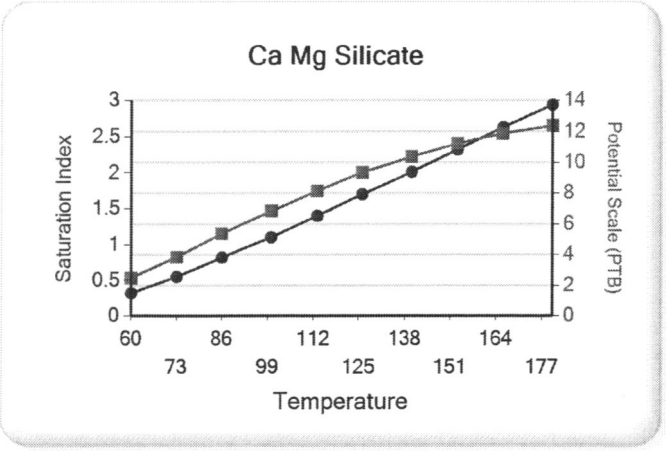
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.14	0.00	0.00	0.83	5.61	0.32	2.49	10.48	22.62
73.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.20	0.00	0.00	1.30	8.22	0.55	3.86	10.69	22.66
86.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.23	0.00	0.00	1.83	11.00	0.82	5.38	10.97	22.75
100.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.25	0.00	0.00	2.37	13.63	1.10	6.82	11.27	22.84
113.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05	0.26	0.00	0.00	2.92	16.10	1.40	8.16	11.59	22.91
126.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	1.21	0.27	0.00	0.00	3.48	18.37	1.70	9.35	11.93	22.97
140.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36	0.27	0.00	0.00	4.04	20.40	2.01	10.37	12.28	23.03
153.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.27	0.00	0.00	4.60	22.13	2.32	11.21	12.64	23.07
166.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63	0.28	0.00	0.00	5.16	23.52	2.63	11.87	13.01	23.11
180.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75	0.28	0.00	0.00	5.71	24.53	2.94	12.38	13.39	23.14

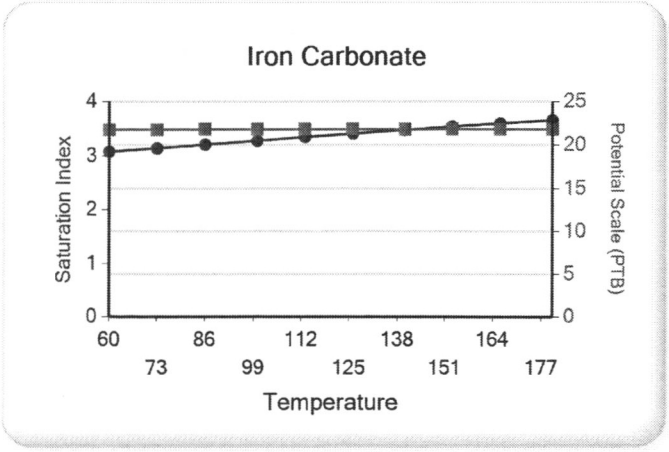
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

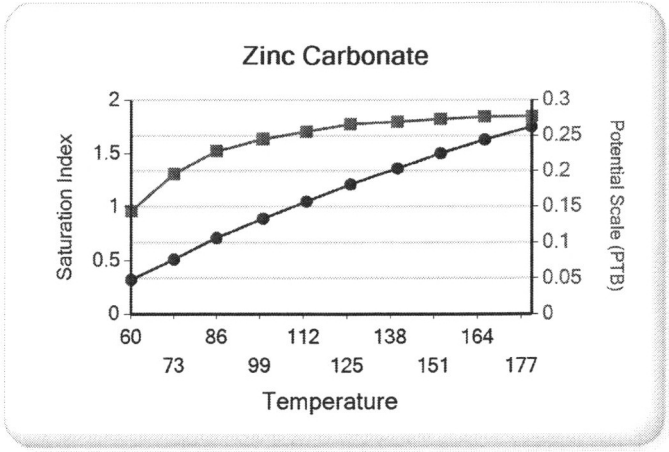
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

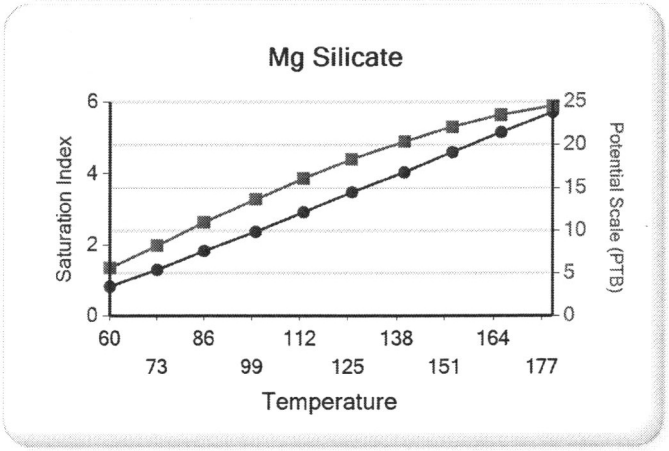


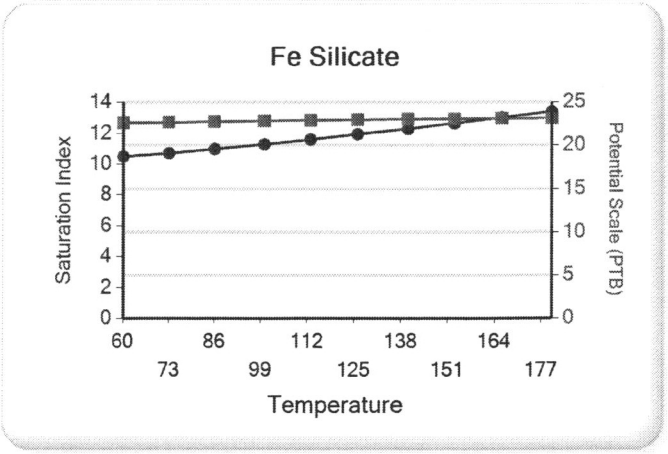







Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
0
0.5
1
1.5
2
0
0.05
0.1
0.15
0.2
0.25
0.3
60
73
86
99
112
125
138
151
164
177


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
2
4
6
0
5
10
15
20
25
60
73
86
99
112
125
138
151
164
177


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
0
2
4
6
8
10
12
14
0
5
10
15
20
25
60
73
86
99
112
125
138
151
164
177

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

JUL 2008

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Steve Wall, District Manager
Petroglyph Energy, Inc.
4116 West 3000 So. Ioka Lane
Roosevelt, UT 84066

RE: Authorization to Continue Injection
UIC Permit No. UT20736-00000
Well ID: UT20736-07416
Ute Tribal No. 30-02
Duchesne County, Utah

Dear Mr. Wall:

Thank you for submitting information pertaining to the newly constructed or converted Ute Tribal No. 30-02 enhanced recovery injection well to the Region 8 Ground Water Program office of the Environmental Protection Agency (EPA). Follow-up conditions for the "Prior To Commencing Injection" and "Limited Authorization To Inject" requirements for the Ute Tribal No. 30-02 injection well required well owner and operator Petroglyph Energy, Inc. to submit a Radioactive Tracer Survey (RTS) to the Director.

All required information has been submitted, and has been reviewed and approved by the EPA. Therefore, effective upon your receipt of this letter, Administrative approval hereby is granted for continued injection into the Ute Tribal No. 30-02 enhanced recovery injection well under the conditions of the Authorization for Additional Well and UIC Area Permit UT20736-00000 as modified.

As of this approval, responsibility for permit compliance and enforcement is transferred to the Region 8 UIC Technical Enforcement Program office. Therefore, please direct all future notification, reporting, monitoring and compliance correspondence to the following address, referencing your well and UIC Permit number on all correspondence regarding this well.

Technical Enforcement Program - UIC
U.S. EPA Region 8, Mail Code 8ENF-UFO
1595 Wynkoop Street
Denver, Colorado 80202-1129

The Director has determined that the maximum allowable surface injection pressure (MAIP) for the Ute Tribal No. 30-02 shall not exceed **1625** psig. Please be reminded that it is the responsibility of the owner/operator to be aware of, and to comply with, all conditions of Authorization for Additional Well UT20736-07416 and EPA UIC Area Permit UT20736-00000 and relevant modifications as issued.

If you have any questions regarding this Authorization, please call Linda Bowling of my staff at (303) 312-6254. For questions regarding notification, testing, monitoring, reporting or other Permit requirements, please contact Nathan Wiser of the UIC Technical Enforcement Program by calling (303) 312-6211.

Sincerely,

Steven J. Pratt, P.E., CAPM (inactive)
Director, Ground Water Program

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to: JUL 0 2 2008

Steve Wall, District Manager
Petroglyph Energy, Inc.
4116 West 3000 S. Ioka Lane
Roosevelt, UT 84066

H

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Robert A Cox ☐ Agent ☐ Addressee

B. Received by (*Printed Name*) C. Date of Delivery 7-7-08

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (*Extra Fee*) ☐ Yes

2. Article Number
(*Transfer from service label*) 7004 1350 0001 5669 9909

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

7004 1350 0001 5669 9909

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

Postage	$
Certified Fee	
Return Reciept Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Pos	

Postmark Here

Sent To Steve Wall, District Manager
Petroglyph Energy, Inc.
Street, Apt. or PO Box 4116 West 3000 S. Ioka Lane
City, State, Roosevelt, UT 84066

PS Form 3800, June 2002 See Reverse for Instructions