Inspection Report For Well: UT20736 - 07417

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~~ 12/16/2013

Others: Ajayi, Christopher — Time: 2:45 am / pm

OPERATOR (only if different): _____

REPRESENTATIVE(S): Chad Stevinson

PRE-INSPECTION REVIEW

Petroglyph Operating Company, Inc

Well Name:	Ute Tribal 29-13		
Well Type:	Enhanced Recovery (2R)		
Operating Status:	AC (ACTIVE) as of 2/1/2007		
Oil Field:	Antelope Creek (Duchesne)		
Location:	SWSW S29 T5S R3W		
Indian Country:	X, Uintah and Ouray		
Last Inspection:	8/29/2012	***Allowable Inj Pressure:***	1458 /
Last MIT:	Pass 1/18/2012	***Annulus Pressure From Last MIT:***	1650

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 12/30/13
Initials DB

OBSERVED VALUES:

Tubing Gauge:	[x] Yes [ ] No	Pressure: U: 1336 / 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)
- [ ] Active
- [ ] Being Reworked
- [x] Not Injecting
- [ ] Production
- [ ] Plugged and Abandoned
- [ ] Under Construction

	GREEN	BLUE	CBI
AB		1	

U2 Entered
Date 12/17/13
Initial SL

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

Inspection Report For Well: UT20736 - 07417 (PAGE 2)

PHOTOGRAPHS: ☐ Yes ☒ No List of photos taken: _____

Comments and site conditions observed during inspection: _____

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

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

EPA

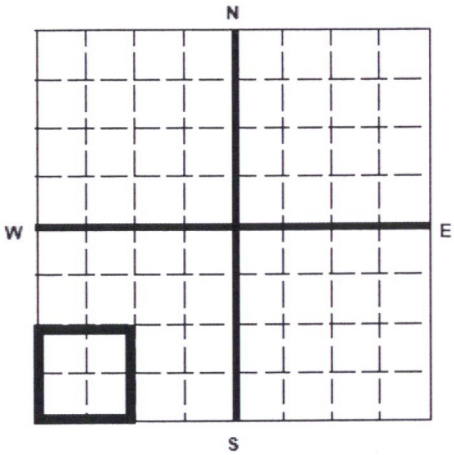
United States Environmental Protection Agency
Washington, DC 20460

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	UT20736-07417

Surface Location Description
___ 1/4 of ___ 1/4 of SW 1/4 of SW 1/4 of Section 29 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) S Line of quarter section
and 660 ft. from (E/W) W 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 29-13

		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	1413	1430	87		0	0
February	16	1410	1430	134		0	0
March	16	1357	1425	150		0	0
April	16	1358	1380	144		0	0
May	16	1365	1380	202		0	0
June	16	1383	1400	191		0	0
July	16	1398	1420	147		0	0
August	16	1415	1430	101		0	0
September	16	1386	1400	32		0	0
October	16	1390	1410	169		0	0
November	16	1356	1420	84		0	0
December	16	1357	1400	107		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

GREEN BLUE CBI TAF 2

U2 Entered
Date 4/6/17
Initial RB

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 29-13 INJ, DUCHESNE**	Lab Tech:	**Kaitlyn Natelli**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2017**		
Sample ID:	**WA-345354**		

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):	1.0031
pH:	8.90
Calculated TDS (mg/L):	8370.66
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	5.00
Tot. SuspendedSolids(mg/L):	
Corrosivity(LanglierSat.Indx)	0.00
Alkalinity:	

Analysis @ Properties in Sample Specifics

Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	2689.94	Chloride (Cl):	3000.00
Potassium (K):	20.08	Sulfate (SO_4):	80.00
Magnesium (Mg):	18.13	Bicarbonate (HCO_3):	2379.00
Calcium (Ca):	50.83	Carbonate (CO_3):	
Strontium (Sr):	3.97	Hydroxide(HO):	
Barium (Ba):	8.26	Acetic Acid (CH_3COO)	
Iron (Fe):	88.38	Propionic Acid (C_2H_5COO)	
Zinc (Zn):	10.96	Butanoic Acid (C_3H_7COO)	
Lead (Pb):	0.00	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Ammonia NH_3:		Fluoride (F):	
Manganese (Mn):	0.40	Bromine (Br):	
Aluminum (Al):	0.53	Silica (SiO_2):	20.71
Lithium (Li):	2.86	Calcium Carbonate ($CaCO_3$):	
Boron (B):	3.88	Phosphates (PO_4):	7.54
Silicon (Si):	9.68	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	2.17	44.04	1.17	4.56	5.07	4.53	4.48	64.26	0.00	0.00	0.00	0.00	0.00	0.00	11.75	5.01
149.00	267.00	2.22	44.09	1.07	4.48	5.01	4.53	4.57	64.26	0.00	0.00	0.00	0.00	0.00	0.00	11.49	5.01
168.00	483.00	2.29	44.15	1.00	4.39	4.98	4.53	4.66	64.26	0.00	0.00	0.00	0.00	0.00	0.00	11.25	5.01
187.00	700.00	2.36	44.20	0.94	4.32	4.96	4.53	4.74	64.26	0.00	0.00	0.00	0.00	0.00	0.00	11.05	5.01
206.00	917.00	2.44	44.25	0.90	4.26	4.97	4.53	4.82	64.26	0.00	0.00	0.00	0.00	0.00	0.00	10.87	5.01
224.00	1133.00	2.53	44.30	0.87	4.22	4.99	4.53	4.90	64.26	0.00	0.00	0.00	0.00	0.00	0.00	10.71	5.01
243.00	1350.00	2.62	44.34	0.86	4.20	5.03	4.53	4.96	64.26	0.00	0.00	0.00	0.00	0.00	0.00	10.57	5.01
262.00	1567.00	2.72	44.37	0.86	4.19	5.09	4.53	5.03	64.26	0.00	0.00	0.00	0.00	0.00	0.00	10.45	5.01
281.00	1783.00	2.83	44.39	0.86	4.20	5.15	4.53	5.08	64.26	0.00	0.00	0.00	0.00	0.00	0.00	10.34	5.01
300.00	2000.00	2.93	44.42	0.88	4.22	5.22	4.53	5.13	64.26	0.00	0.00	0.00	0.00	0.00	0.00	10.25	5.01

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

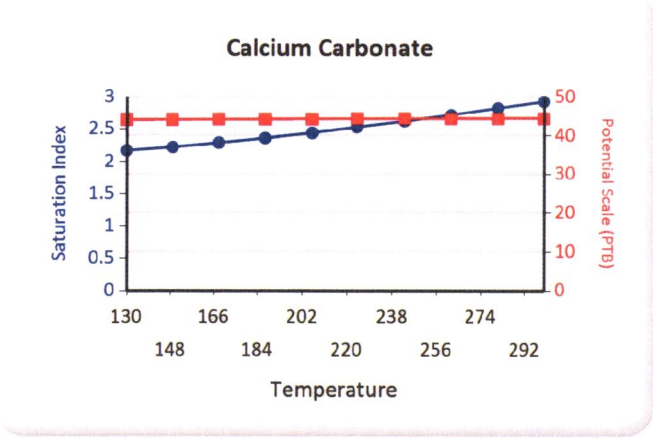
multi-chem
A HALLIBURTON SERVICE

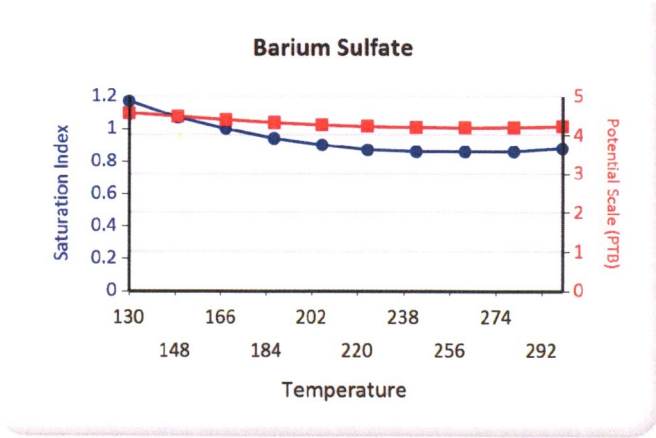
Water Analysis Report

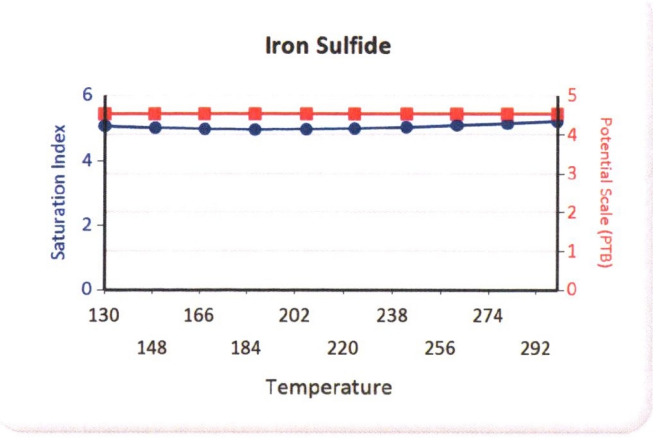
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
130.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	3.26	7.36	0.00	0.00	6.54	35.28	3.87	27.06	16.45	48.04
149.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	3.46	7.37	0.00	0.00	7.24	35.68	4.24	27.40	16.87	48.04
168.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	3.65	7.37	0.00	0.00	7.93	35.92	4.61	27.62	17.30	48.04
187.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	3.81	7.37	0.00	0.00	8.62	36.05	4.98	27.76	17.75	48.04
206.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	3.96	7.37	0.00	0.00	9.29	36.13	5.36	27.85	18.20	48.04
224.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	4.09	7.37	0.00	0.00	9.95	36.17	5.72	27.90	18.65	48.04
243.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21	7.37	0.00	0.00	10.58	36.19	6.08	27.93	19.09	48.04
262.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	4.31	7.37	0.00	0.00	11.18	36.21	6.42	27.95	19.52	48.04
281.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	4.39	7.37	0.00	0.00	11.74	36.21	6.75	27.96	19.93	48.04
300.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	4.45	7.37	0.00	0.00	12.28	36.22	7.06	27.97	20.32	48.04

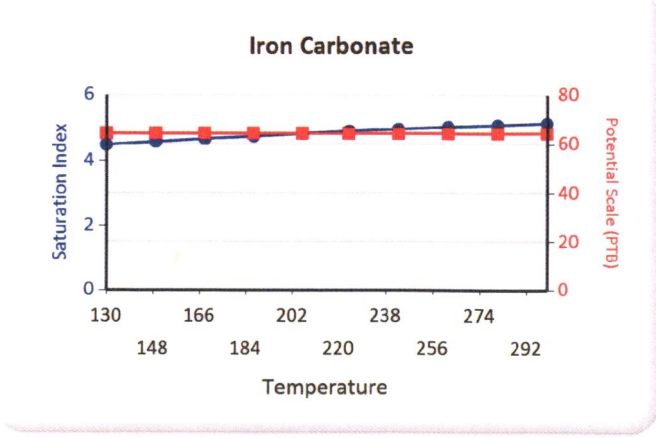
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

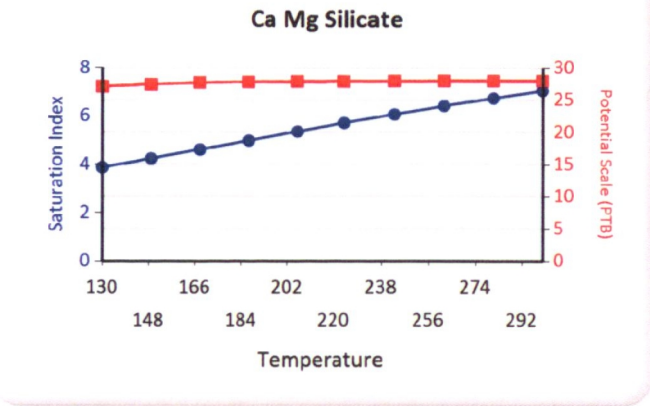
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Mg Silicate Ca Mg Silicate Fe Silicate

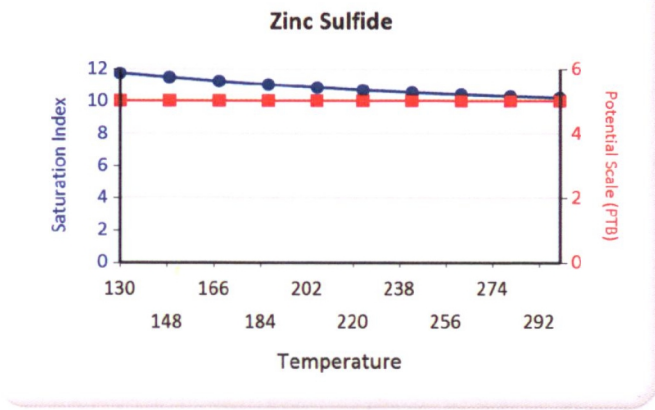









Ca Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
130 166 202 238 274
148 184 220 256 292


Zinc Sulfide
Saturation Index
Potential Scale (PTB)
Temperature
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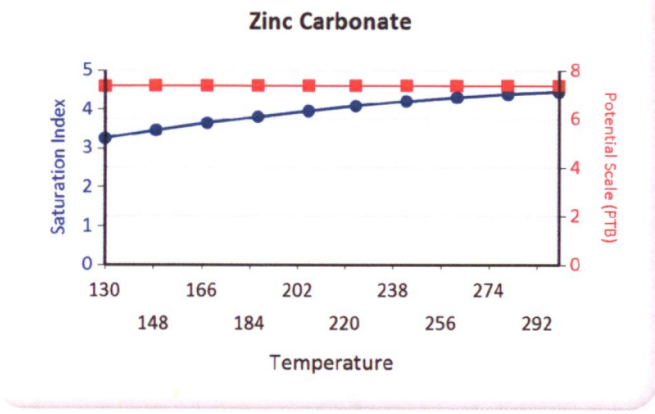
148 184 220 256 292


Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
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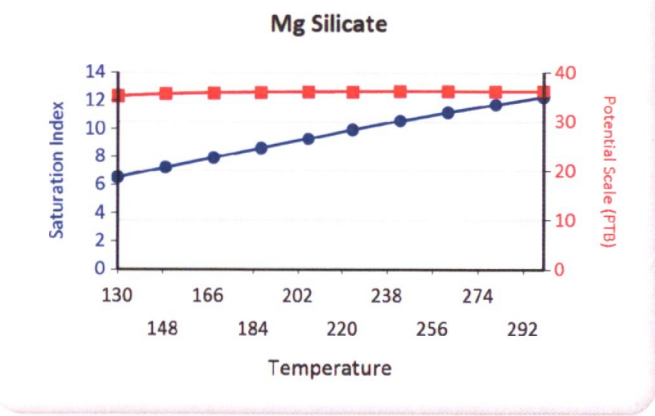
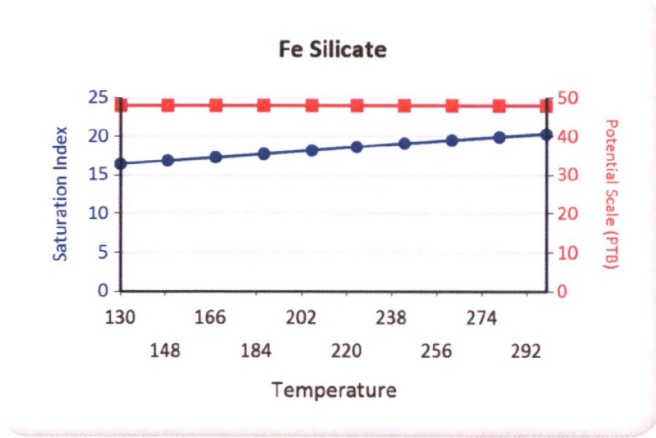

Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
130 166 202 238 274
148 184 220 256 292


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
25
20
15
10
5
0
50
40
30
20
10
0
130
148
166
184
202
220
238
256
274
292

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: 1/18/17
Test conducted by: CHAD STEVENSON
Others present: _____

Well Name: 29-13 UT20736-07417 Type: ER SWD **Status:** AC TA UC
Field: ANTELOPE CREEK
Location: 29-13 Sec: ____ T ____ N / S R ____ E / W County: DUCHESNE State: UT
Operator: PETROGLYPH ENERGY
Last MIT: ___/___/___ **Maximum Allowable Pressure:** _____ PSIG

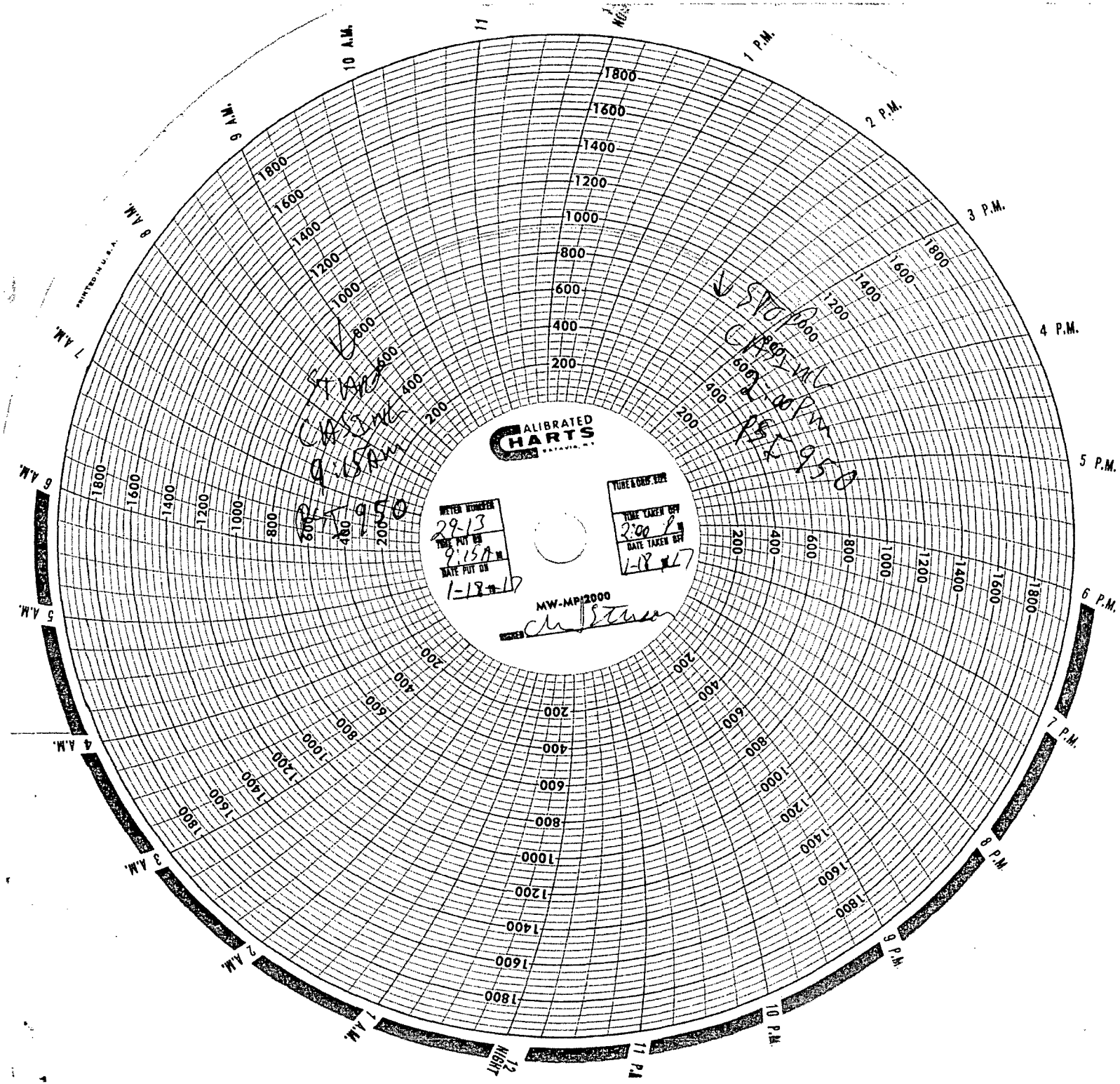
Regularly scheduled test? [X] Yes [ ] No
Initial test for permit? [ ] Yes [ ] No
Test after well rework? [ ] Yes [ ] No

U2 Entered
Date 3/20/17
Initial JB

Well injecting during test? If Yes, rate: 4 bpd
Pre-test annulus pressure: _____ psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING		**PRESSURE RECORD**	
Initial Pressure	1390 psig	psig	psig
End of test pressure	1390 psig	psig	psig
CASING / TUBING ANNULUS		**PRESSURE RECORD**	
0 minutes	950 psig	psig	psig
5 minutes	950 psig	psig	psig
10 minutes	950 psig	psig	psig
15 minutes	950 psig	psig	psig
20 minutes	950 psig	psig	psig
25 minutes	950 psig	psig	psig
30 minutes	950 psig	psig	psig
4½ Hours minutes	950 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
BATAVIA, N.Y.
METER NUMBER
2913
TIME PUT ON
9:15 A.M.
DATE PUT ON
1-18-17
TUBE & ORIF. SIZE
TIME TAKEN OFF
2:00 P.M.
DATE TAKEN OFF
1-18-17
MW-MP 2000
PRINTED IN U.S.A.
MIDNIGHT
1 A.M.
2 A.M.
3 A.M.
4 A.M.
5 A.M.
6 A.M.
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10 A.M.
11
NOON
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5 P.M.
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7 P.M.
8 P.M.
9 P.M.
10 P.M.
11 P.M.
9:15 AM
PST 950
2:00 PM
PST 950

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

EPA

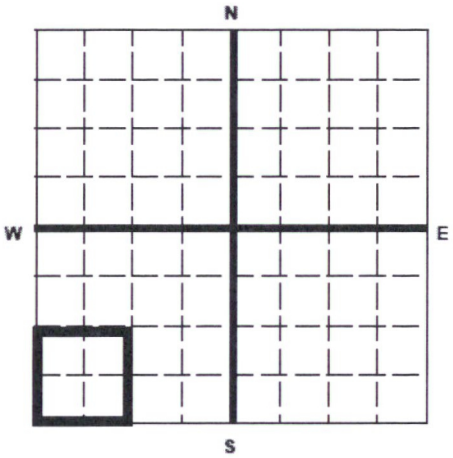
United States Environmental Protection Agency
Washington, DC 20460

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~~ 07417

Surface Location Description
___ 1/4 of ___ 1/4 of SW 1/4 of SW 1/4 of Section 29 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) S Line of quarter section
and 660 ft. from (E/W) W Line of quarter section.

U2 Entered
Date 3/3/16
Initial DS

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 29-13

		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	1325	1390	110		0	0
February	15	1378	1430	147		0	0
March	15	1393	1430	155		0	0
April	15	1377	1400	55		0	0
May	15	1404	1410	55		0	0
June	15	1393	1430	73		0	0
July	15	1371	1380	81		0	0
August	15	1380	1390	118		0	0
September	15	1405	1410	98		0	0
October	15	1413	1430	103		0	0
November	15	1415	1430	87		0	0
December	15	1397	1420	75		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 2

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

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

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Units of Measurement: **Standard**

Water Analysis Report

Production Company:	**PETROGLYPH OPERATING CO INC - EBUS**	Sales Rep:	**James Patry**
Well Name:	**UTE TRIBAL 29-13 INJ, DUCHESNE**	Lab Tech:	**Michele Pike**
Sample Point:	**Well Head**		
Sample Date:	**1/6/2016**		
Sample ID:	**WA-327682**		

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):	**1.0033**
pH:	**8.30**
Calculated TDS (mg/L):	**8608.15**
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	**0.00**
H_2S in Gas (%):	
H2S in Water (mg/L):	**25.00**
Tot. SuspendedSolids(mg/L):	
Corrosivity(LanglierSat.Indx)	**0.00**
Alkalinity:	

Analysis @ Properties in Sample Specifics

Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	**2831.70**	Chloride (Cl):	**3500.00**
Potassium (K):	**15.42**	Sulfate (SO_4):	**230.00**
Magnesium (Mg):	**51.95**	Bicarbonate (HCO_3):	**1830.00**
Calcium (Ca):	**99.87**	Carbonate (CO_3):	
Strontium (Sr):	**4.98**	Acetic Acid (CH_3COO)	
Barium (Ba):	**3.43**	Propionic Acid (C_2H_5COO)	
Iron (Fe):	**9.99**	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	**4.81**	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	**0.53**	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	**0.10**	Silica (SiO_2):	**25.37**
Aluminum (Al):	**0.02**	Calcium Carbonate ($CaCO_3$):	
Lithium (Li):	**1.36**	Phosphates (PO_4):	**7.71**
Boron (B):	**2.02**	Oxygen (O_2):	
Silicon (Si):	**11.86**		

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	2.04	82.53	1.02	1.85	4.23	5.51	3.23	7.26	0.00	0.00	0.00	0.00	0.00	0.00	10.93	2.51
167.00	267.00	1.95	80.57	1.04	1.86	4.20	5.51	3.11	7.26	0.00	0.00	0.00	0.00	0.00	0.00	11.03	2.51
153.00	483.00	1.87	78.98	1.08	1.87	4.19	5.51	3.01	7.26	0.00	0.00	0.00	0.00	0.00	0.00	11.17	2.51
140.00	700.00	1.80	77.20	1.12	1.89	4.20	5.51	2.91	7.26	0.00	0.00	0.00	0.00	0.00	0.00	11.32	2.51
127.00	917.00	1.73	75.26	1.17	1.90	4.23	5.51	2.82	7.25	0.00	0.00	0.00	0.00	0.00	0.00	11.49	2.51
113.00	1133.00	1.67	73.22	1.24	1.92	4.26	5.51	2.72	7.25	0.00	0.00	0.00	0.00	0.00	0.00	11.67	2.51
100.00	1350.00	1.62	71.12	1.32	1.95	4.32	5.51	2.62	7.24	0.00	0.00	0.00	0.00	0.00	0.00	11.88	2.51
87.00	1567.00	1.57	69.05	1.41	1.96	4.39	5.51	2.52	7.24	0.00	0.00	0.00	0.00	0.00	0.00	12.10	2.51
73.00	1783.00	1.52	67.06	1.52	1.98	4.47	5.51	2.43	7.23	0.00	0.00	0.00	0.00	0.00	0.00	12.35	2.51
60.00	2000.00	1.49	65.23	1.65	2.00	4.58	5.51	2.34	7.22	0.00	0.00	0.00	0.00	0.00	0.00	12.62	2.51

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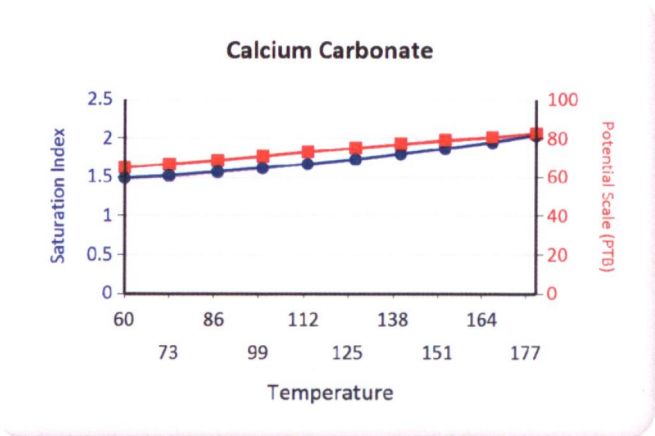
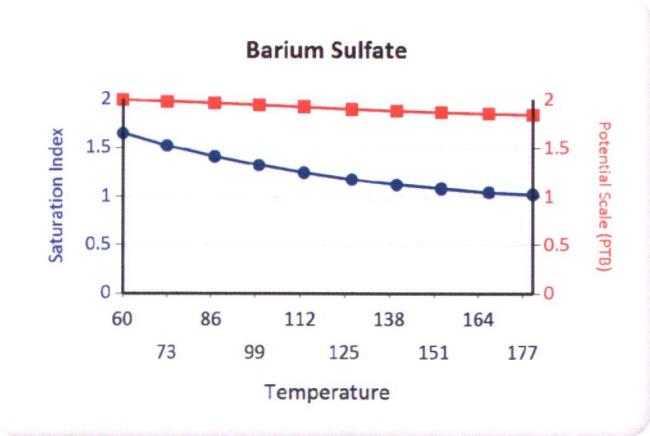
Water Analysis Report

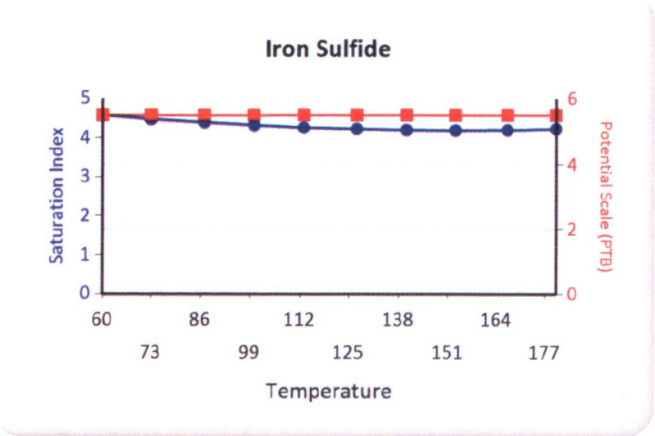
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
180.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	2.80	3.23	11.25	0.21	6.94	57.55	3.88	29.93	12.09	7.77
167.00	267.00	0.00	0.00	0.00	0.00	0.00	0.00	2.64	3.22	11.46	0.21	6.21	50.38	3.45	26.90	11.52	7.77
153.00	483.00	0.00	0.00	0.00	0.00	0.00	0.00	2.48	3.22	11.71	0.21	5.58	44.43	3.08	24.25	11.06	7.77
140.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	2.31	3.22	11.98	0.21	4.95	38.29	2.71	21.37	10.61	7.76
127.00	917.00	0.00	0.00	0.00	0.00	0.00	0.00	2.14	3.21	12.27	0.21	4.32	32.31	2.35	18.40	10.17	7.76
113.00	1133.00	0.00	0.00	0.00	0.00	0.00	0.00	1.95	3.20	12.60	0.21	3.68	26.69	1.99	15.48	9.74	7.76
100.00	1350.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76	3.17	12.95	0.21	3.05	21.53	1.64	12.66	9.32	7.76
87.00	1567.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	3.14	13.33	0.21	2.41	16.79	1.29	9.97	8.92	7.75
73.00	1783.00	0.00	0.00	0.00	0.00	0.00	0.00	1.34	3.07	13.75	0.21	1.78	12.35	0.94	7.36	8.52	7.74
60.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	1.11	2.96	14.20	0.21	1.14	8.05	0.60	4.80	8.13	7.73

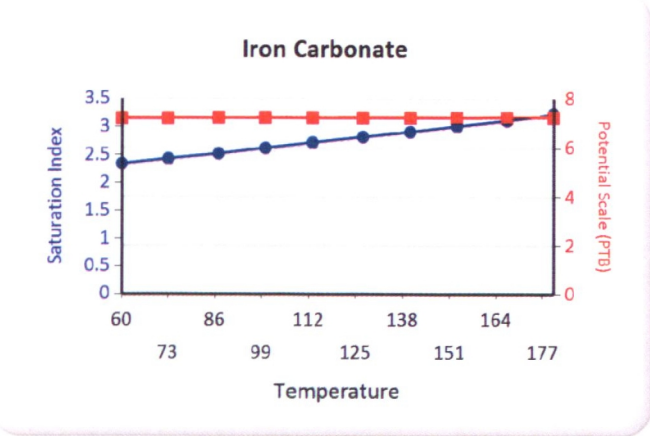
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

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









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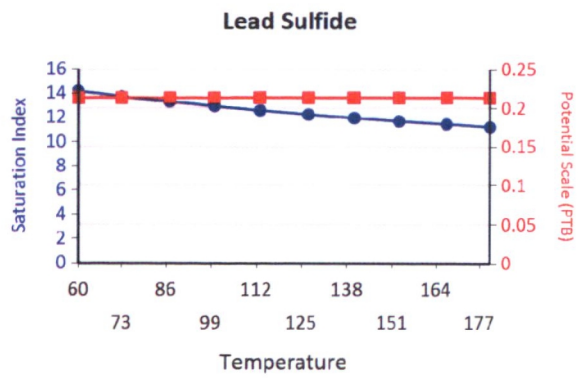
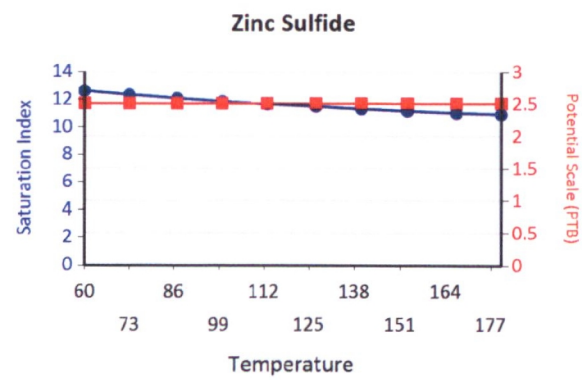
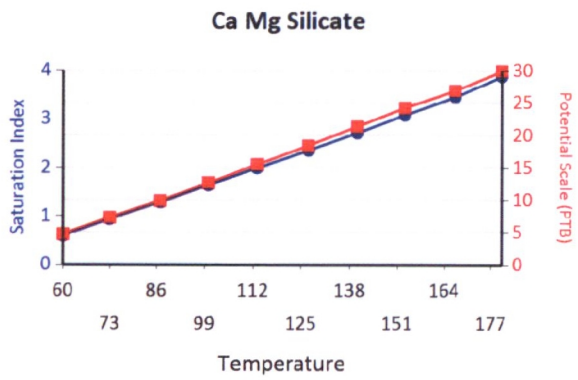
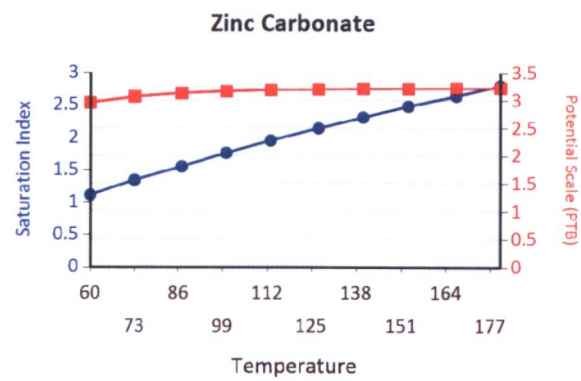
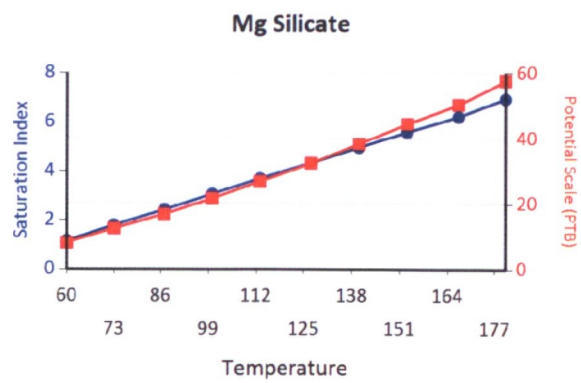
Water Analysis Report

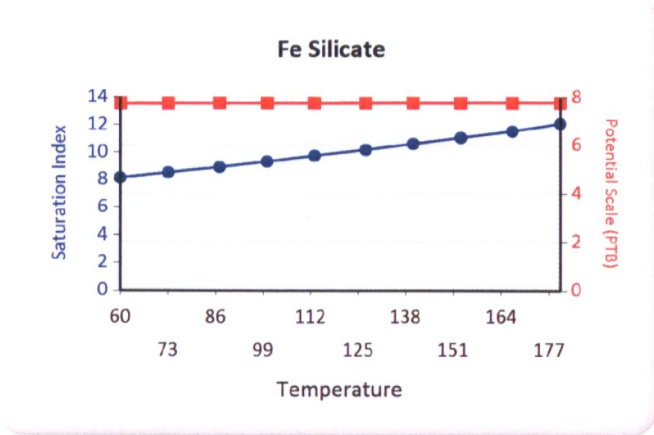











Fe Silicate
Saturation Index
Potential Scale (PTB)
14
12
10
8
6
4
2
0
8
6
4
2
0
60
86
112
138
164
73
99
125
151
177
Temperature

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

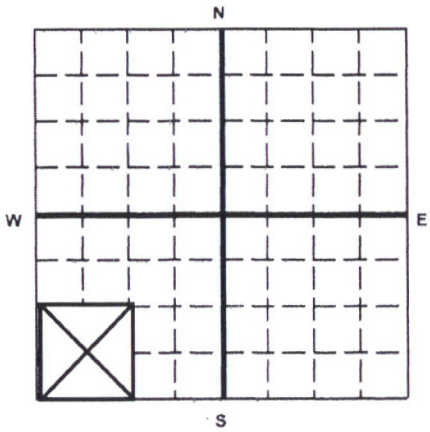
EPA

United States Environmental Protection Agency
Washington, DC 20460

ANNUAL DISPOSAL/INJECTION WELL MONITORING REPORT

Name and Address of Existing Permittee	Name and Address of Surface Owner
Petroglyph Operating Company, Inc. 2258 P.O. Box 7608 Boise, Idaho 83709	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	UT20736-07417

Surface Location Description

____ 1/4 of ____ 1/4 of SW 1/4 of SW 1/4 of Section 29 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) S Line of quarter section and 660 ft. from (E/W) W 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 29-13

		INJECTION PRESSURE		TOTAL VOLUME INJECTED		TUBING -- CASING ANNULUS PRESSURE (OPTIONAL MONITORING)	
MONTH	YEAR	AVERAGE PSIG	MAXIMUM PSIG	BBL	MCF	MINIMUM PSIG	MAXIMUM PSIG
January	14	1314	1407	109		0	0
February	14	1386	1419	66		0	0
March	14	1384	1400	96		0	0
April	14	1365	1379	124		0	0
May	14	1362	1378	102		0	0
June	14	1374	1372	111		0	0
July	14	1288	1	52		0	0
August	14	1382	1	~~110~~	104 inj-mnthly	0	0
September	14	1378	1	60		0	0
October	14	1405	0	114		0	0
November	14	1409	0	113		0	0
December	14	1422	0	149		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		2/10/2015

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

U2 Entered
Date 3/31/15
Initial GW

	GREEN	BLUE	CBI
TAB		2	

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Units of Measurement: **Standard**

Water Analysis Report

Production Company:	**PETROGLYPH OPERATING CO INC - EBUS**	Sales Rep:	**James Patry**
Well Name:	**UTE TRIBAL 29-13 INJ, DUCHESNE**	Lab Tech:	**Gary Winegar**
Sample Point:	**WELLHEAD**		
Sample Date:	**1/7/2015**		
Sample ID:	**WA-297455**		

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

Sample Specifics	
Test Date:	1/14/2015
System Temperature 1 (°F):	160
System Pressure 1 (psig):	1300
System Temperature 2 (°F):	80
System Pressure 2 (psig):	15
Calculated Density (g/ml):	1.0032
pH:	8.50
Calculated TDS (mg/L):	8620.68
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	35.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	2804.46	Chloride (Cl):	3000.00
Potassium (K):	50.83	Sulfate (SO_4):	154.00
Magnesium (Mg):	29.76	Bicarbonate (HCO_3):	2490.00
Calcium (Ca):	53.79	Carbonate (CO_3):	
Strontium (Sr):	5.01	Acetic Acid (CH_3COO)	
Barium (Ba):	7.29	Propionic Acid (C_2H_5COO)	
Iron (Fe):	1.74	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.37	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.06	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.12	Silica (SiO_2):	23.25

Notes:
B=6.2 Al=.01 Li=1.34

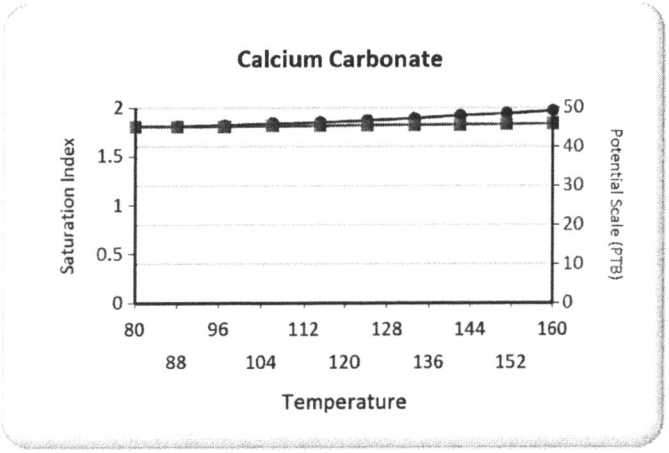
(PTB = Pounds per Thousand Barrels)

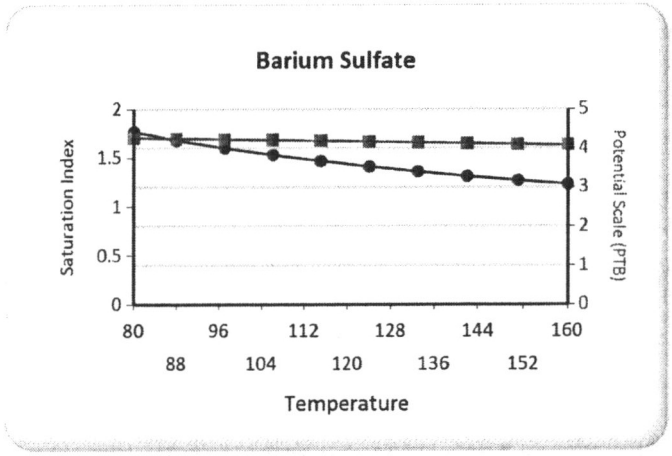
		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
80.00	14.00	1.81	45.20	1.77	4.27	4.18	0.96	2.24	1.26	0.00	0.00	0.00	0.00	0.00	0.00	11.57	0.19
88.00	157.00	1.81	45.11	1.68	4.25	4.10	0.96	2.28	1.26	0.00	0.00	0.00	0.00	0.00	0.00	11.39	0.19
97.00	300.00	1.82	45.19	1.60	4.23	4.04	0.96	2.32	1.26	0.00	0.00	0.00	0.00	0.00	0.00	11.22	0.19
106.00	443.00	1.84	45.28	1.53	4.21	3.99	0.96	2.37	1.26	0.00	0.00	0.00	0.00	0.00	0.00	11.07	0.19
115.00	585.00	1.85	45.37	1.47	4.19	3.94	0.96	2.41	1.26	0.00	0.00	0.00	0.00	0.00	0.00	10.92	0.19
124.00	728.00	1.87	45.47	1.41	4.17	3.90	0.96	2.45	1.26	0.00	0.00	0.00	0.00	0.00	0.00	10.79	0.19
133.00	871.00	1.89	45.57	1.36	4.15	3.87	0.96	2.49	1.26	0.00	0.00	0.00	0.00	0.00	0.00	10.66	0.19
142.00	1014.00	1.92	45.67	1.31	4.12	3.85	0.96	2.53	1.26	0.00	0.00	0.00	0.00	0.00	0.00	10.54	0.19
151.00	1157.00	1.94	45.77	1.27	4.10	3.83	0.96	2.57	1.26	0.00	0.00	0.00	0.00	0.00	0.00	10.43	0.19
160.00	1300.00	1.97	45.87	1.23	4.08	3.82	0.96	2.61	1.26	0.00	0.00	0.00	0.00	0.00	0.00	10.32	0.19

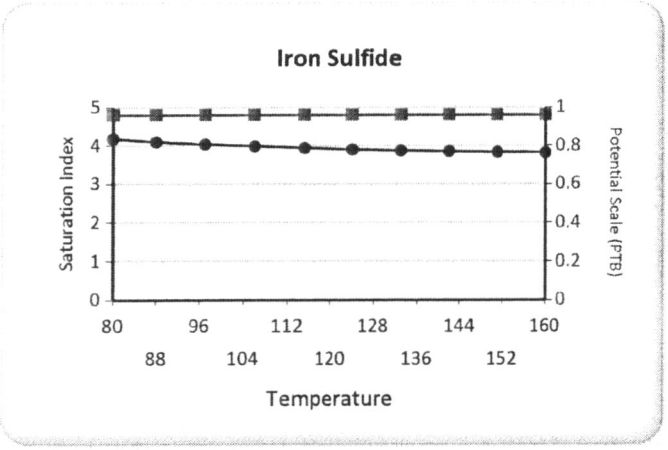
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
80.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.21	13.06	0.02	2.35	17.23	1.08	7.82	7.59	1.35
88.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.22	12.76	0.02	2.64	18.46	1.22	8.44	7.71	1.35
97.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02	0.22	12.49	0.02	3.00	20.28	1.41	9.35	7.91	1.35
106.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14	0.23	12.23	0.02	3.37	21.95	1.61	10.19	8.12	1.35
115.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	0.23	11.99	0.02	3.74	23.43	1.80	10.95	8.34	1.35
124.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35	0.24	11.76	0.02	4.12	24.70	2.01	11.63	8.57	1.35
133.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.24	11.55	0.02	4.50	25.73	2.21	12.21	8.81	1.35
142.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.24	11.34	0.02	4.88	26.52	2.42	12.72	9.05	1.35
151.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64	0.24	11.15	0.02	5.26	27.10	2.63	13.13	9.30	1.35
160.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73	0.25	10.97	0.02	5.64	27.49	2.85	13.47	9.55	1.35

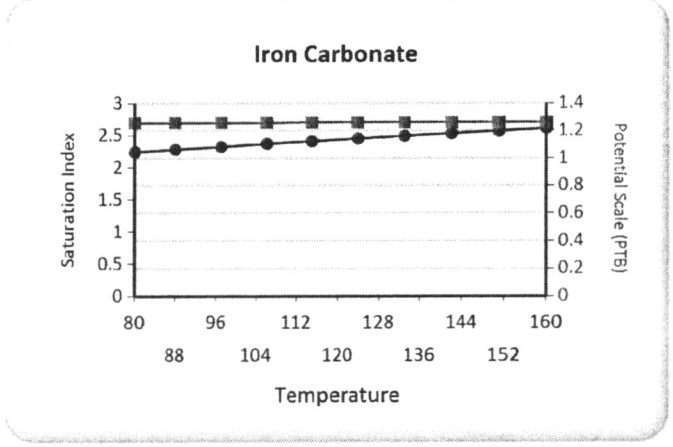
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

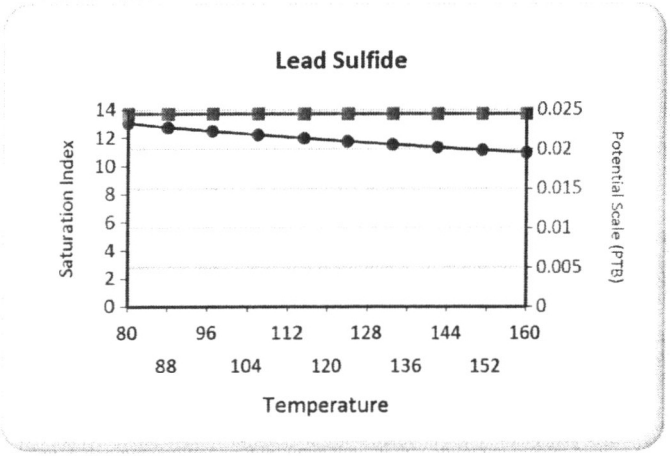
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

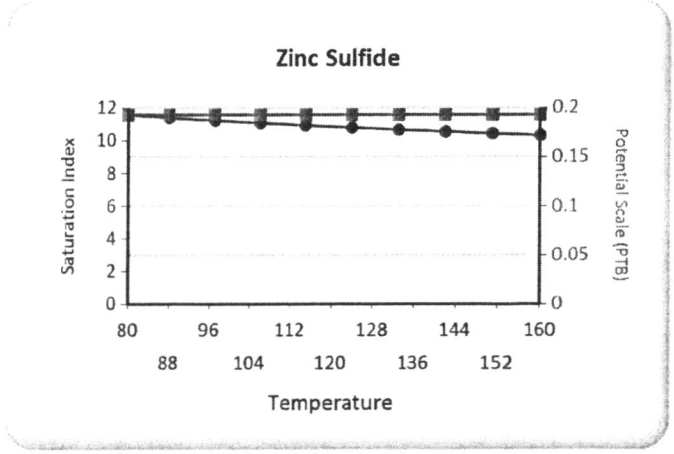


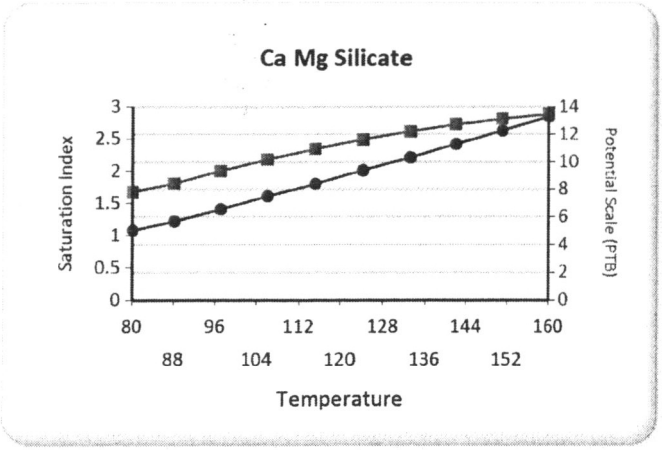


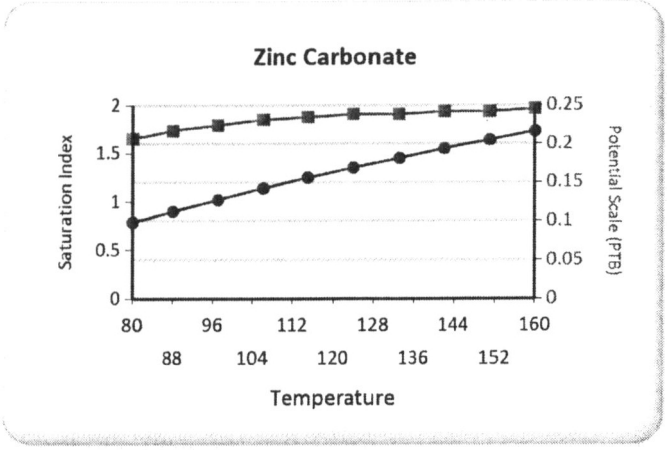









Ca Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
80 96 112 128 144 160
88 104 120 136 152


Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
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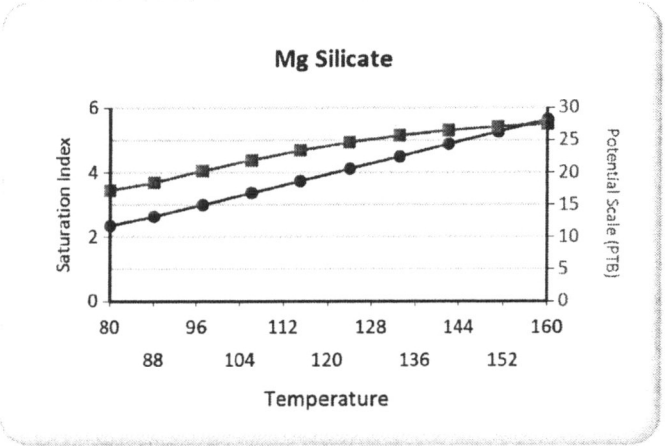
88 104 120 136 152


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
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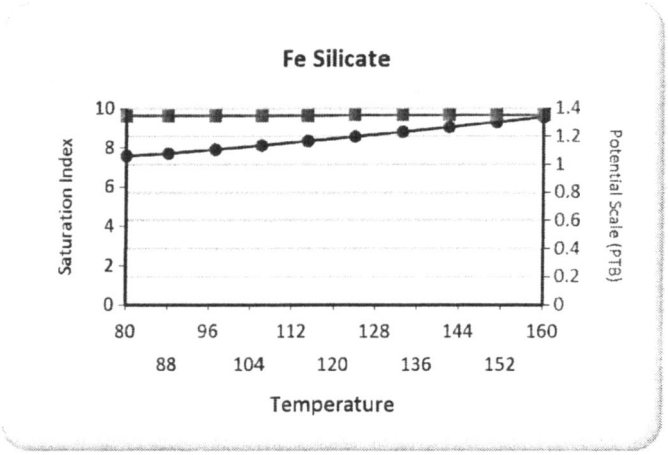
88 104 120 136 152


Fe Silicate
Saturation Index
Potential Scale (PTB)
Temperature
80 96 112 128 144 160
88 104 120 136 152

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

EPA

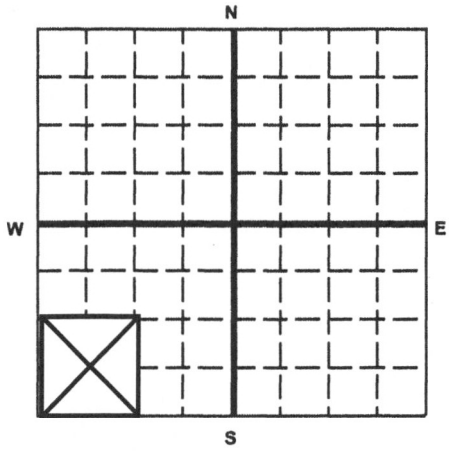
United States Environmental Protection Agency
Washington, DC 20460

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	UT20736-07417

Surface Location Description
___ 1/4 of ___ 1/4 of SW 1/4 of SW 1/4 of Section 29 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) S Line of quarter section
and 660 ft. from (E/W) W 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 29-13

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	1313	1417	46		0	0
February	13	1367	1391	86		0	0
March	13	1198	1273	80		0	0
April	13	1374	1416	138		0	0
May	13	1390	1432	113		0	0
June	13	1346	1398	100		0	0
July	13	1376	1404	73		0	0
August	13	1330	1425	106		0	0
September	13	1371	1410	62		0	0
October	13	1325	1392	83		0	0
November	13	1368	1426	78		0	0
December	13	1336	1385	86		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		2/11/2014

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

U2 Entered
Date 3/21/14
Initial 13

GREEN	BLUE	CBI
TAB	2	

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

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Units of Measurement: **Standard**

Water Analysis Report

Production Company: **PETROGLYPH ENERGY INC**
Well Name: **UTE TRIBAL 29-13 INJ**
Sample Point: **Wellhead**
Sample Date: **1/8/2014**
Sample ID: **WA-263019**

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:	8.60
Calculated TDS (mg/L):	11379.49
CO2 in Gas (%):	
Dissolved CO_2 (mg/L)):	0.00
H_2S in Gas (%):	
H2S in Water (mg/L):	50.00

Analysis @ Properties in Sample Specifics			
Cations	*mg/L*	*Anions*	*mg/L*
Sodium (Na):	3917.55	Chloride (Cl):	5000.00
Potassium (K):	51.00	Sulfate (SO_4):	292.00
Magnesium (Mg):	32.00	Bicarbonate (HCO_3):	1952.00
Calcium (Ca):	71.00	Carbonate (CO_3):	
Strontium (Sr):	5.00	Acetic Acid (CH_3COO)	
Barium (Ba):	7.50	Propionic Acid (C_2H_5COO)	
Iron (Fe):	27.00	Butanoic Acid (C_3H_7COO)	
Zinc (Zn):	0.50	Isobutyric Acid ($(CH_3)_2CHCOO$)	
Lead (Pb):	0.09	Fluoride (F):	
Ammonia NH_3:		Bromine (Br):	
Manganese (Mn):	0.31	Silica (SiO_2):	23.54

Notes:
B=4 Al=.2 Li=.83

(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum $CaSO_4 \cdot 2H_2O$		Celestite $SrSO_4$		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	1.80	58.00	2.14	4.43	5.69	14.90	3.15	19.61	0.00	0.00	0.00	0.00	0.00	0.00	12.33	0.26
73.00	157.00	1.81	57.92	1.99	4.42	5.55	14.90	3.22	19.62	0.00	0.00	0.00	0.00	0.00	0.00	12.02	0.26
86.00	300.00	1.82	58.14	1.86	4.41	5.43	14.90	3.28	19.62	0.00	0.00	0.00	0.00	0.00	0.00	11.75	0.26
100.00	443.00	1.85	58.41	1.75	4.39	5.34	14.90	3.35	19.62	0.00	0.00	0.00	0.00	0.00	0.00	11.50	0.26
113.00	585.00	1.87	58.69	1.65	4.37	5.26	14.90	3.41	19.62	0.00	0.00	0.00	0.00	0.00	0.00	11.27	0.26
126.00	728.00	1.90	59.00	1.57	4.34	5.20	14.90	3.48	19.62	0.00	0.00	0.00	0.00	0.00	0.00	11.06	0.26
140.00	871.00	1.94	59.31	1.49	4.32	5.16	14.90	3.54	19.63	0.00	0.00	0.00	0.00	0.00	0.00	10.88	0.26
153.00	1014.00	1.97	59.62	1.43	4.30	5.13	14.90	3.60	19.63	0.00	0.00	0.00	0.00	0.00	0.00	10.70	0.26
166.00	1157.00	2.02	59.92	1.38	4.28	5.11	14.90	3.66	19.63	0.00	0.00	0.00	0.00	0.00	0.00	10.55	0.26
180.00	1300.00	2.06	60.21	1.34	4.26	5.10	14.90	3.71	19.63	0.00	0.00	0.00	0.00	0.00	0.00	10.40	0.26

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Vernal, UT 84078

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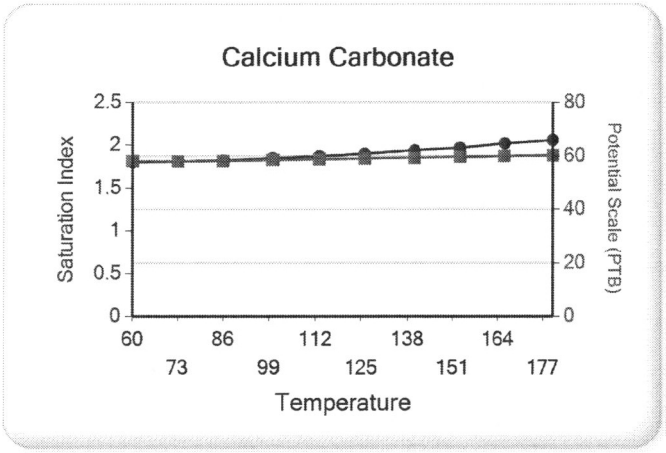
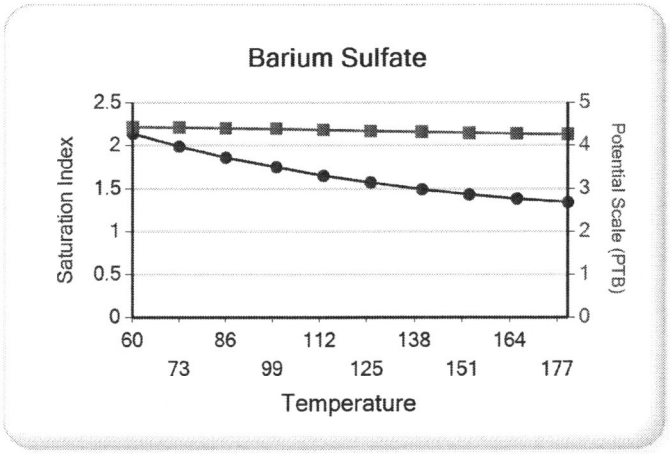
Water Analysis Report

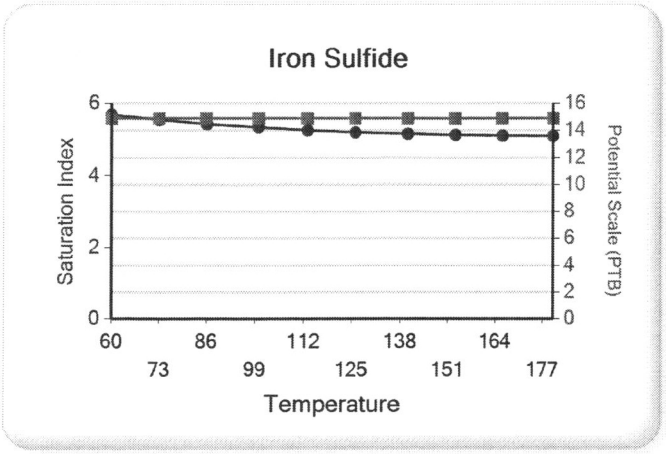
		Hemihydrate CaSO4~0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
60.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.23	14.13	0.04	2.18	16.44	1.16	8.37	11.01	20.95
73.00	157.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.27	13.64	0.04	2.65	18.86	1.39	9.44	11.22	20.95
86.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.29	13.19	0.04	3.17	21.32	1.66	10.56	11.48	20.96
100.00	443.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07	0.31	12.78	0.04	3.70	23.47	1.93	11.54	11.77	20.97
113.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	1.24	0.32	12.41	0.04	4.24	25.23	2.22	12.37	12.08	20.98
126.00	728.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	0.32	12.06	0.04	4.78	26.55	2.51	13.05	12.40	20.98
140.00	871.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54	0.33	11.75	0.04	5.33	27.43	2.81	13.57	12.74	20.99
153.00	1014.00	0.00	0.00	0.00	0.00	0.00	0.00	1.68	0.33	11.45	0.04	5.88	27.96	3.11	13.96	13.09	20.99
166.00	1157.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	0.33	11.19	0.04	6.42	28.25	3.41	14.24	13.45	21.00
180.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	1.92	0.33	10.94	0.04	6.96	28.39	3.71	14.44	13.80	21.00

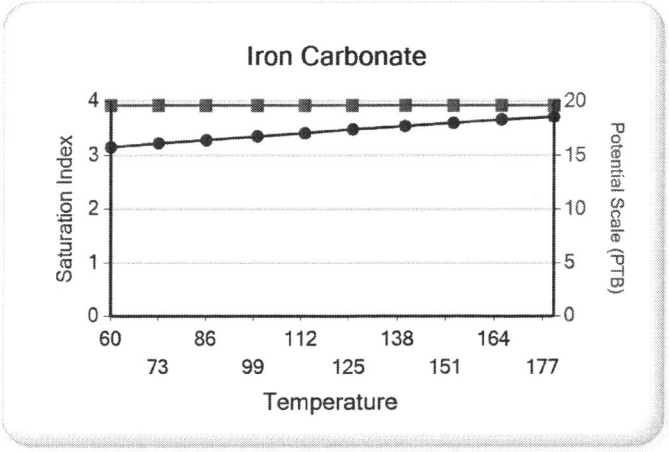
These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

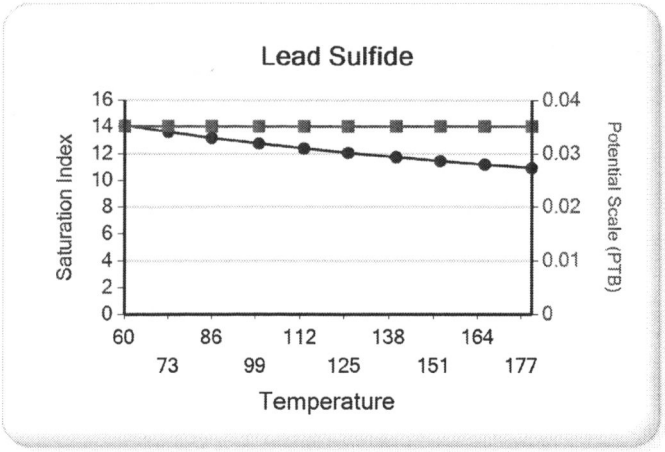
These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Sulfide Iron Carbonate Zinc Sulfide Zinc Carbonate Lead Sulfide Mg Silicate Ca Mg Silicate Fe Silicate

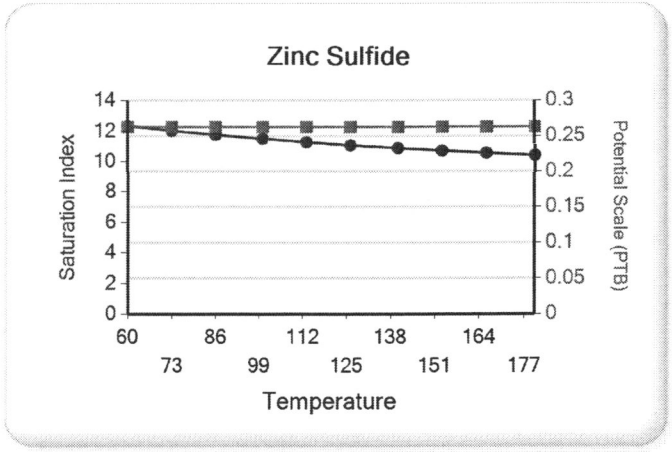









Lead Sulfide
Saturation Index
Potential Scale (PTB)
Temperature
60 86 112 138 164
73 99 125 151 177


Zinc Sulfide
Saturation Index
Potential Scale (PTB)
Temperature
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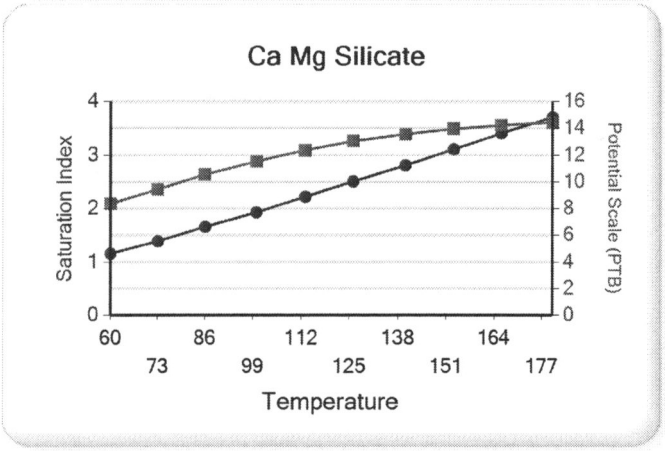
73 99 125 151 177


Ca Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
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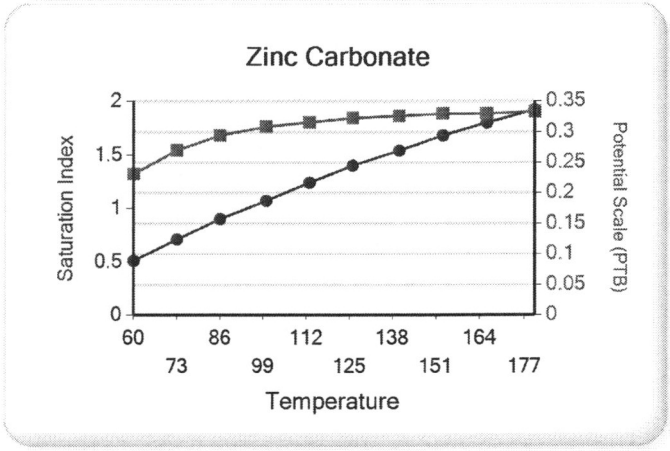
73 99 125 151 177


Zinc Carbonate
Saturation Index
Potential Scale (PTB)
Temperature
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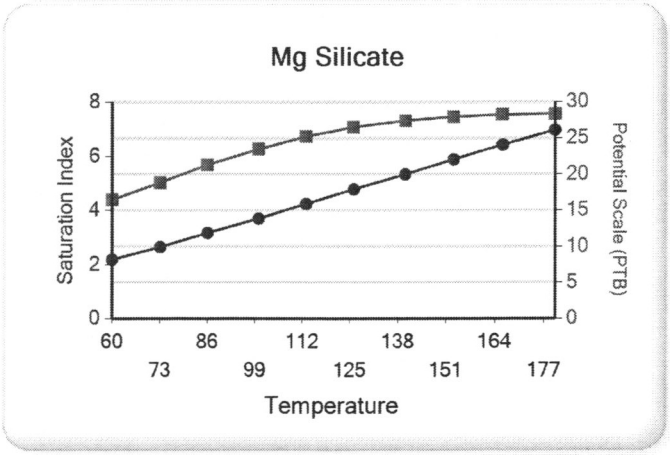
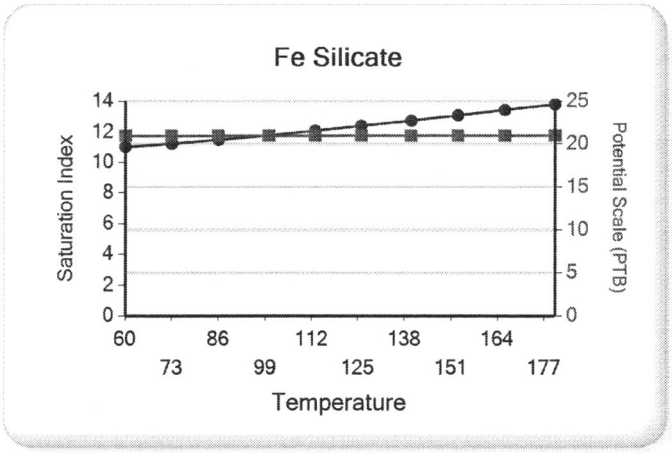
73 99 125 151 177


Mg Silicate
Saturation Index
Potential Scale (PTB)
Temperature
60 86 112 138 164
73 99 125 151 177


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

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

FEB 22 2007

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 Inject
UIC Permit No. UT20736-00000
Well ID: UT20736-07417
Ute Tribal No. 29-13
Duchesne County, Utah

Dear Mr. Wall:

Thank you for submitting information pertaining to the newly constructed or converted Ute Tribal No. 29-13 enhanced recovery injection well to the Region 8 Ground Water Program office of the Environmental Protection Agency (EPA). The "Prior To Commencing Injection" requirements for the Ute Tribal No. 29-13 injection well required well owner and operator Petroglyph Operating Company, Inc. to submit the following information to the Director:

I. A successful mechanical integrity test (MIT) demonstrating Part I Internal MI,
II. Pore pressure calculation of the proposed injection zone, and
III. Completed EPA Form No. 7520-12.

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 injection into the Ute Tribal No. 29-13 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. 29-13 shall not exceed **1458** 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 UT20736-07417 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
Director,
Ground Water Program

Maxine Natchees, Chairperson
Uintah & Ouray Business Committee
Ute Indian Tribe
P.O. Box 190
Fort Duchesne, UT 84026

Chester Mills, Superintendent
BIA - Uintah & Ouray Indian Agency
P.O. Box 130
Fort Duchesne, UT 84026

Mr. Kenneth Smith
Executive Vice President and Chief Operating Officer
Petroglyph Energy, Inc.
555 S. Cole Blvd
Boise, ID 83709

Shaun Chapoose, Director
Land Use Department
Ute Indian Tribe
P.O. Box 460
Fort Duchesne, UT 84026

Gil Hunt
Associate Director
Utah Division of Oil, Gas, and Mining
1594 West North Temple - Suite 1220
Salt Lake City, UT 84114-5801

Kirk Fleetwood, PE
BLM - Vernal District
170 South 500 East
Vernal, UT 84078

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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:

FEB 2 2 2007

PAW-UIC

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

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Patti Coy
☒ Agent
☐ Addressee

B. Received by (Printed Name) Patti Coy
C. Date of Delivery

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

RECEIVED
FEB 28 2007
EPA Region 8
Ground Water Program

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) 7005 0390 0000 4847 3495

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

7005 0390 0000 4847 3266

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Petroglyph Energy, Inc/
Street, Apt. No. or PO Box No. 4116 West 3000 So. Ioka Lane
City, State, ZIP+4 Roosevelt, UT 84066

PS Form 3800, June 2002 See Reverse for Instructions

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Restricted Delivery Fee (Endorsement Required)		
Total Postage		

Sent To Mr. Steve Wall
District Manager
Petroglyph Energy, Inc
Street, Apt. No. or PO Box No. 4116 West 3000 So. Ioka Lane
City, State, ZIP+4 Roosevelt, UT 84066

PS Form 3800, June 2002 See Reverse for Instructions