



SALT POINT ROAD  
PO Box 110  
WATKINS GLEN, NY 14891-0110  
607 / 535-2721

March 4, 2010

Linda Collart  
Regional Minerals Manager  
NYS DEC - Region 8  
6274 East Avon-Lima Road  
Avon, NY 14414

Re.: US Salt LLC – Well 58 Conversion Application

Dear Ms. Collart:

Enclosed is an application for conversion of Well 58 from a stratigraphic well to a solution mining well. With the Department's approval for conversion, Well 58 will be used for fresh water injection to produce brine for salt production at our facility.

Previously submitted documents show Well 58 is suitable for solution mining for the sole purpose of salt brine production at our facility only.

If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Frank Pastore', written in a cursive style.

Frank Pastore  
Plant Manager

xc: William Glynn – NYSDEC Region 8  
Well 58 file



PRINT OR TYPE IN BLACK INK

# APPLICATION FOR PERMIT TO DRILL, DEEPEN, PLUG BACK OR CONVERT A WELL SUBJECT TO THE OIL, GAS AND SOLUTION MINING LAW

THIS APPLICATION IS A LEGAL DOCUMENT. READ THE APPLICABLE AFFIRMATION AND ACKNOWLEDGMENT CAREFULLY BEFORE SIGNING.  
For instructions on completing this form, visit the Division's website at [www.dec.ny.gov/energy/205.html](http://www.dec.ny.gov/energy/205.html) or contact your local Regional office.

PLANNED OPERATION: (Check one)			
<input type="checkbox"/> Drill	<input type="checkbox"/> Deepen	<input type="checkbox"/> Plug Back	<input checked="" type="checkbox"/> Convert
TYPE OF WELL: (Check one)		Existing API Well Identification Number	
<input type="checkbox"/> New	<input checked="" type="checkbox"/> Existing	31-   0   9   7   -   2   1   4   6   7   -   0   0   -   0   1	
TYPE OF WELL BORE: (Check one)			
<input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Directional <input type="checkbox"/> Horizontal			
NAME OF OWNER (Full Name of Organization or Individual as registered with the Division)		TELEPHONE NUMBER (include area code)	
US Salt LLC		607   535-2067	
ADDRESS (P.O. Box or Street Address, City, State, Zip Code)			
3580 Salt Point Road, Watkins Glen, NY 14891			
NAME AND TITLE OF LOCAL REPRESENTATIVE WHO CAN BE CONTACTED WHILE OPERATIONS ARE IN PROGRESS			
Frank Pastore Manager			
ADDRESS—Business (P.O. Box or Street Address, City, State, Zip Code)		TELEPHONE NUMBER (include area code)	
3580 Salt point Road Watkins Glen, NY 14891		607   535-2067	
ADDRESS—Night, Weekend and Holiday (P.O. Box or Street Address, City, State, Zip Code)		TELEPHONE NUMBER (include area code)	
<b>WELL LOCATION DATA (attach plat)</b>			
COUNTY	TOWN	FIELD/POOL NAME (or "Wildcat")	
Schuyler	Reading	US Salt	
WELL NAME	WELL NUMBER	NUMBER OF ACRES IN UNIT	
Well 58	58	389	
7½ MINUTE QUAD NAME	QUAD SECTION	PROPOSED TARGET FORMATION	
Reading Center	F	Salt	
LOCATION DESCRIPTION			
		Decimal Latitude (NAD83)	
Surface	0' 0	4 2 . 4 1 6 0 5 4	
Top of Target Interval		□ □ . □ □ □ □ □ □ □ □	
Bottom of Target Interval		□ □ . □ □ □ □ □ □ □ □	
Bottom Hole	2,642 2,642	□ □ . □ □ □ □ □ □ □ □	
	TVD TMD	□ □ . □ □ □ □ □ □ □ □	
<b>PROPOSED WELL DATA</b>			
WELL TYPE (check one)		PLANNED TOTAL DEPTH	PLANNED DATE OF COMMENCEMENT OF OPERATIONS
<input type="checkbox"/> Oil Production <input type="checkbox"/> Gas Production <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Storage		TVD 2,642 ft.	
<input type="checkbox"/> Injection <input type="checkbox"/> Brine Disposal <input type="checkbox"/> Geothermal <input type="checkbox"/> Stratigraphic		TMD 2,642 ft.	
<input type="checkbox"/> Other _____		Kickoff _____ TMD	
SURFACE ELEVATION (check how obtained)		TYPE TOOLS	PLANNED DRILLING FLUID
814 ft. <input checked="" type="checkbox"/> Surveyed <input type="checkbox"/> Topo Map <input type="checkbox"/> Other _____		<input type="checkbox"/> Cable <input type="checkbox"/> Rotary	<input type="checkbox"/> Air <input type="checkbox"/> Water <input type="checkbox"/> Mud
NAME OF PLANNED DRILLING CONTRACTOR (as registered with the Division)		TELEPHONE NUMBER (include area code)	
ON ATTACHED SHEET GIVE DETAILS FOR EACH PROPOSED CASING STRING AND CEMENT JOB INCLUDING BUT NOT LIMITED TO: Bit size, casing size, casing weight and grade, TVD and TMD of casing set, scratchers, centralizers, cement baskets, sacks of cement, class of cement, cement additives with percentages or pounds per sack, estimated TVD and TMD of the top of cement, estimated amount of excess cement and waiting-on-cement time.			
FOR DIRECTIONAL OR SIDETRACK WELLS ALSO INCLUDE A WELL BORE DIAGRAM SHOWING THE LOCATION OF THE ITEMS INCLUDED IN THE ABOVE REFERENCED DETAILS.			
<b>DEPARTMENT USE ONLY</b>			
BOND NUMBER			
API WELL IDENTIFICATION NUMBER			
31-			
RECEIPT NUMBER			
DATE ISSUED			

WELL NAME Well 58	WELL NUMBER 58	NAME OF OWNER US Salt LLC
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COMMENTS:  
US Salt LLC request to convert well 58 from a stratigraphic well to a brine production well.

**AFFIRMATION AND ACKNOWLEDGMENT**

**A. For use by individual:**  
By the act of signing this application:

(1) I affirm under penalty that the information provided in this application is true to the best of my knowledge and belief; and that I possess the right to access property, and drill and/or extract oil, gas, or salt, by deed or lease, from the lands and site described in the well location data section of this application. I am aware that any false statement made in this application is punishable as a Class A Misdemeanor under Section 210.45 of the Penal Law.

(2) I acknowledge that if the permit requested to be issued in consideration of the information and affirmations contained in this application is issued, as a condition to the issuance of that permit, I accept full legal responsibility for all damage, direct or indirect, of whatever nature and by whomever suffered, arising out of the activity conducted under authority of that permit; and agree to indemnify and hold harmless the State, its representatives, employees, agents, and assigns for all claims, suits, actions, damages, and costs of every name and description, arising out of or resulting from the permittee's undertaking of activities or operation and maintenance of the facility or facilities authorized by the permit in compliance or non-compliance with the terms and conditions of the permit.

\_\_\_\_\_

Printed or Typed Name of Individual

\_\_\_\_\_

Signature of Individual

\_\_\_\_\_

Date

**B. For use by organizations other than an individual:**  
By the act of signing this application:

(1) I affirm under penalty of perjury that I am Manager (title) of US Salt LLC (organization); that I am authorized by that organization to make this application; that this application was prepared by me or under my supervision and direction; and that the aforementioned organization possesses the right to access property, and drill and/or extract oil, gas, or salt by deed or lease, from the lands and site described in the well location data section of this application. I am aware that any false statement made in this application is punishable as a Class A Misdemeanor under Section 210.45 of the Penal Law.

(2) US Salt LLC (organization); acknowledges that if the permit requested to be issued in consideration of the information and affirmations contained in this application is issued, as a condition to the issuance of that permit, it accepts full legal responsibility for all damage, direct or indirect, of whatever nature and by whomever suffered, arising out of the activity conducted under authority of that permit; and agrees to indemnify and hold harmless the State, its representatives, employees, agents, and assigns for all claims, from suits, actions, damages, and costs of every name and description, arising out of or resulting from the permittee's undertaking of activities or operation and maintenance of the facility or facilities authorized by the permit in compliance or non-compliance with the terms and conditions of the permit.

Frank Pastore

Printed or Typed Name of Authorized Representative

*Frank Pastore*

Signature of Authorized Representative

3/4/10

Date

# INERGY MIDSTREAM, L.L.C.



January 7, 2010

Linda Collart  
Regional Minerals Manager  
New York State DEC  
Division of Mineral Resources, Region 8  
6274 East Avon-Lima Road  
Avon, NY 14414

RE: Well 58 Conversion from Stratagraphic well to Brine Production well API # 31-097-21467-00-01

Dear Ms. Collart,

Enclosed is the application to convert well 58 from a stratagraphic well to a brine production well.

Well 58 was plugged by US Salt on October 14, 2003 due to advice from consultant Larry Sevenker. During the last logging of well 58 prior to plugging, the indication was that the roof of the cavern had collapsed and filled the whole cavern with rubble. Mr. Sevenker further reported that a small magnitude earthquake could have damaged the cavity. This was reported to the Department in a letter dated May 24, 2001 to Kathleen Sanford from Alan Perry, Plant manager of US Salt.

After further review by Inergy Midstream LLC, Inergy concluded that well 58 could not have been filled with rubble completely. This conclusion was based on conversations with Larry Sevenker consulting engineer for US Salt and Jeff Childress from Micro systems Sonar survey company which was the contractor conducting the sonar on well 58. Larry Sevenker told me that they pulled the 4 ½" tubing up to sonar in open hole, but were unable to get out the bottom. The 4 ½" tubing was set at 2632' inside of 7" tubing set at 2,613'. They tried to sonar through the 4 ½" and 7" tubing on the way out, with results showing no open hole. This was the basis of their conclusion to plug the well. Larry Sevenker looked into seismic activity at the time prior to the logging and determined there was a small magnitude earthquake which could have caused the collapse. I spoke with Jeff Childress about his sonar tool and found out that he could not shoot accurately through one string of pipe and definitely not through two strings. Inergy concluded that this was the evidence proving it was not possible for the cavern to be full of rubble and the sonar was not accurate in finding the cavern due to the two strings of tubing. Prior to plugging well 58 US Salt pulled out the 4 ½" and 7" tubing from the well. The 9 5/8" casing was plugged to surface.

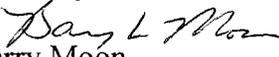
7535 EAGLE VALLEY ROAD  
SAVONA, NEW YORK 14879  
PHONE: 607-776-4201  
FAX: 607-776-6610

A drilling application was issued by the department on October 6, 2009 to drill out the cement in the plugged casing. On October 14, 2009 plug was drilled out and encountered 632.4 psig at surface on casing. Pressure was taken with a calibrated gauge from US Salt by Dave Crea Plant Engineer. The pressure encountered is above the long term brine test pressure approved by the department. Pressure was bled to zero by flowing brine to US Salt Brine Pond. Sonar was completed open hole by Sonarwire Inc on October 20, 2009. Copies of the Sonar were submitted to the department along with a cement bond log, directional survey and Microvertilog. Inergy has completed the well with a 5 1/2" hanging tubing string to 2,420 ft with a 3000# well head. The cemented 9 5/8" casing is 33 ft deeper than the cavern roof. Results from the sonar show that the cap rock is intact with the top of salt at the cavern roof. Cavern capacity from the sonar shows [REDACTED]

[REDACTED] Inergy feels that the information we have discovered since drilling out the well shows a very nice shaped cavern and it is adequate for solution mining. Based on the fact of the results of our sonar study and the established mechanical integrity of the cavern Inergy will be turning ownership over to our US Salt company to do the solution mining to increase the capacity for possible LPG Storage. Prior to converting to LPG storage a well conversion application will be submitted to the department and a brine / nitrogen interface test will be conducted on the well/ well bore.

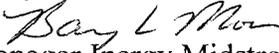
After you have had an opportunity to review the enclosed application material please contact me if you have any questions at 607-321-8084.

Sincerely,

  
Barry Moon  
Manager Inergy Midstream LLC

Addendum February 26, 2010

Inergy Midstream has completed the long term brine pressure test on well 58 along with a MIT test witnessed by EPA contractor Jeffery Blair. In conjunction with this conversion application for well 58 to a solution mining well, per departments request Inergy midstream has determined to increase the capacity of well 58 for future LPG storage from approximately [REDACTED] which is from the sonar (October 20, 2009) from where the tubing is set to approximately [REDACTED]. The estimated future max diameter is [REDACTED] at the bottom of the cavern and [REDACTED] at the top of the cavern. These diameters are estimated and due to time constraints may not reach these distances. Capacity of the cavern will be continuously calculated by monitoring the fresh water injected and the brine produced with meters and specific gravity/ temperature of the brine produced. When complete Inergy will conduct a sonar on the cavern and conduct a brine/nitrogen interface test before it is put in to LPG service.

Barry Moon  
  
Manager Inergy Midstream LLC

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