

BW - _____ 4 _____

**SUBSIDENCE
MONITORING
REPORTS**

DATE:

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, November 14, 2008 4:38 PM
To: 'ziatransports@gmail.com'; 'jrmillett@gmail.com'; 'rharrisnm@aim.com'; 'gandy2@leaco.net'; 'seay04@leaco.net'; 'iwcarlsbad@plateautel.net'; 'Patterson, Bob'; 'Dimas Herrera'; 'gil@mull.us'; 'David Pyeatt'; 'Wayne E Roberts'; Dennis L Shearer; 'garymschubert@aol.com'; 'dgibson@keyenergy.com'; 'Clay Wilson'; 'Prather, Steve'; Ronnie D Devore
Cc: Hill, Larry, EMNRD; Gum, Tim, EMNRD; Price, Wayne, EMNRD
Subject: Brine Well Moratorium Press Release Today
Attachments: PR-OCD Brine Well Moratorium.pdf

FYI, please see the attached NM OCD Press Release issued today. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/index.htm>
(Pollution Prevention Guidance is under "Publications")



New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



November 14, 2008

NEWS RELEASE

Contact: Jodi McGinnis Porter,
Public Information Officer 505.476.3226

Energy, Minerals and Natural Resources Cabinet Secretary Prukop Orders a Six Month Moratorium on New Brine Wells
Oil Conservation Division to Investigate Brine Well Collapses and Provide Recommendations

SANTA FE, NM – Secretary Joanna Prukop today ordered the Oil Conservation Division to place a six month moratorium on any new brine well applications located in geologically sensitive areas. Secretary Prukop's action comes following the second brine well collapse in less than four months in southeastern New Mexico. The Secretary has also directed the Oil Conservation Division to work with the Environmental Protection Agency, other states, technical experts and oil and gas industry representatives to examine the causes of recent collapses, and provide a report with recommendations to the Oil Conservation Commission for a safe path forward. The report should be completed by May 1, 2009.

"I am deeply concerned by these two serious incidents and we are taking action to ensure the safety of our citizens and to protect the environment," stated Secretary Prukop.

Brine wells are an essential part of the oil and gas drilling industry, particularly in the southeastern part of the state. Oil and gas operators use brine water in the drilling process. Brine is saturated salt water which can be more salty than sea water. Brine is created by injecting fresh water into salt formations, allowing the water to absorb the salt and then pumping it out of the well. This method creates an underground cavity.

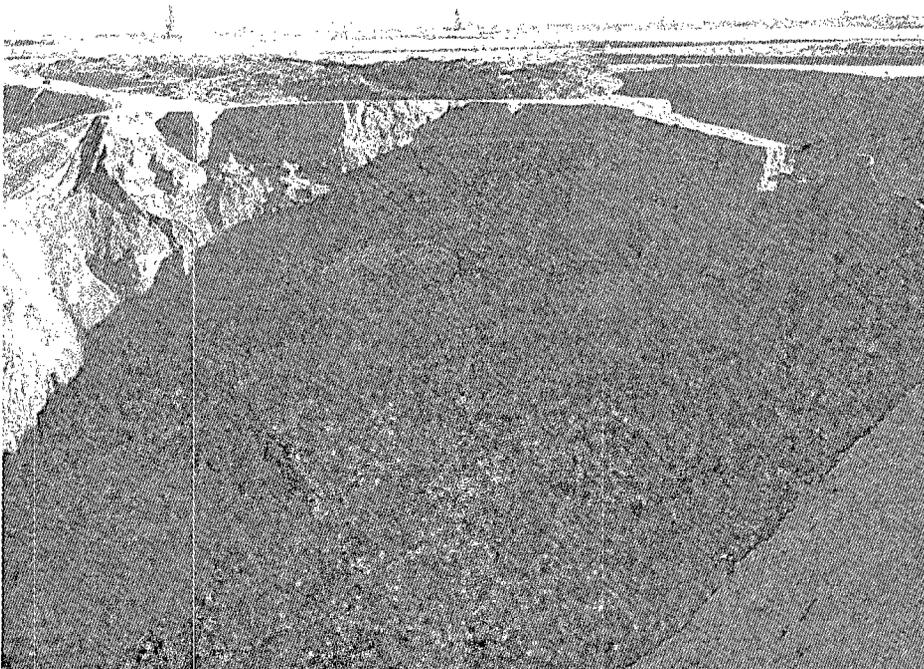
"The moratorium will provide time to properly evaluate the causes of the recent collapses and to discuss the development of new rules or guidelines to ensure the safety and stability of brine well systems," added Secretary Prukop.

The moratorium will only affect new wells and will not impact existing wells and facilities.

Below are photographs of the two recent collapses:



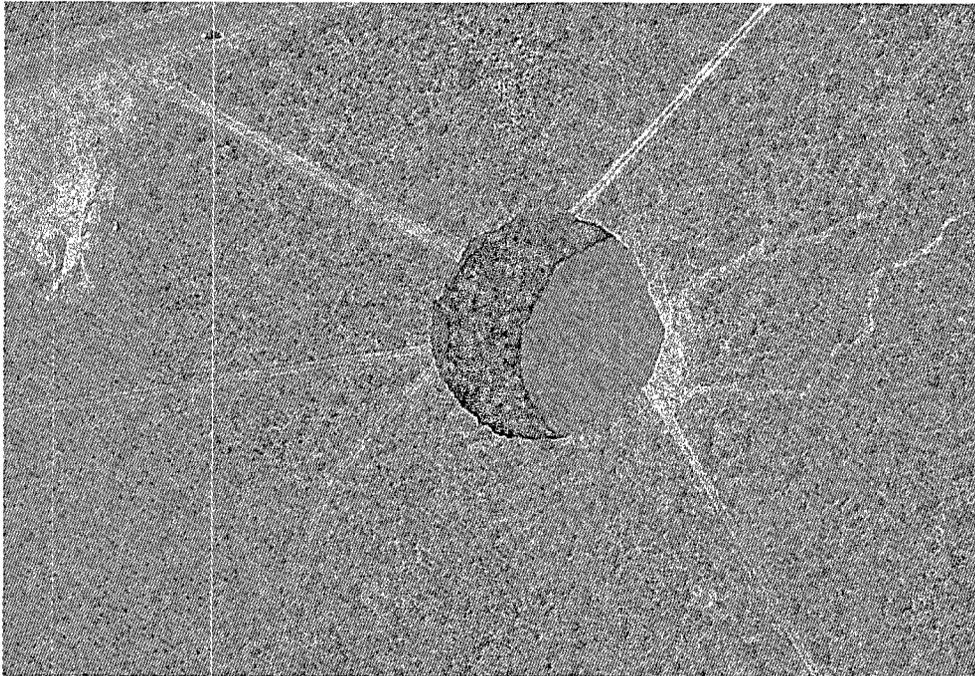
Loco Hills brine well collapse, morning, November 7, 2008, sinkhole with fresh water pond in foreground.
Photo courtesy of Oil Conservation Division



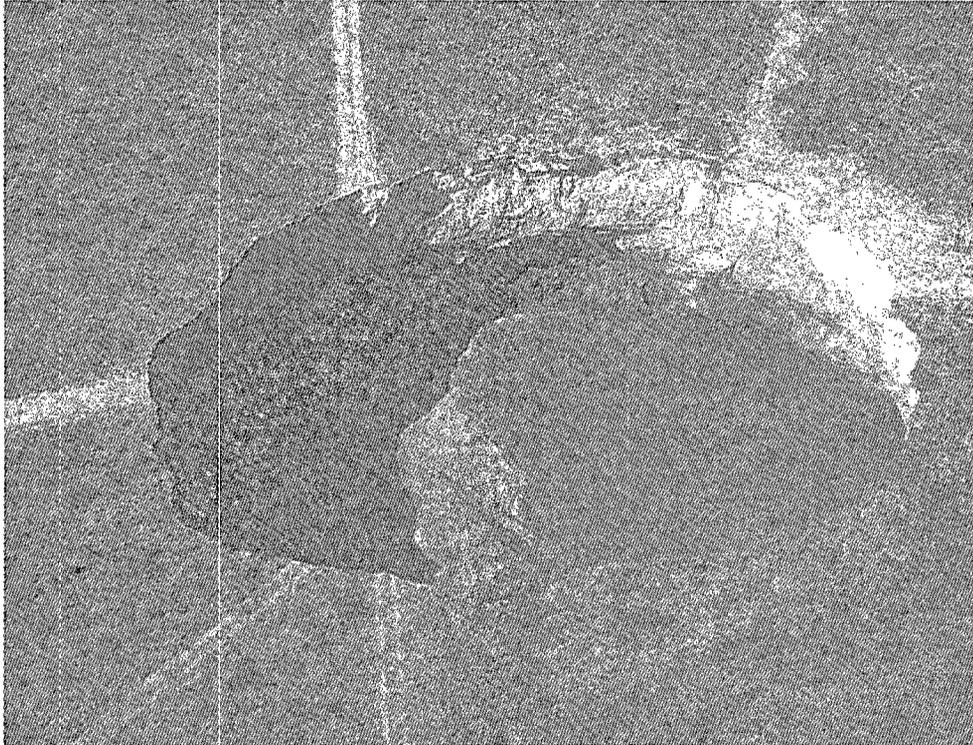
Loco Hills brine well collapse, morning, November 7, 2008 sinkhole.
Photo courtesy of Oil Conservation Division



Loco Hills brine well collapse, morning, November 7, 2008 status of fresh water pond.
Photo courtesy of Oil Conservation Division



Artesia brine well collapse, morning, July 20, 2008 at 10:44 am.
Photo courtesy of National Cave and Karst Research Institute



Artesia brine well collapse morning, July 22, 2008
Photo courtesy of National Cave and Karst Research Institute

#30#

*The Energy, Minerals and Natural Resources Department provides resource protection
and renewable energy resource development services to the public and other state agencies.*

Oil Conservation Division
1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3440 • Fax (505) 476-3462 • www.emnrd.state.nm.us/OCD





SOCON Sonar Well Services, Inc.

ECHO – LOG

Gandy Corporation

Brine Well No: 04

Eidson Brine Station, New Mexico

First SOCON Sonar Well Services Survey

10/21/2008

083069



SOCON Sonar Well Services, Inc.

11133 I-45 South, Ste. E
Phone (936) 441-5801

Conroe, Texas 77302
Fax (936) 539-6847

e-mail: soconusa@socon.com



SOCON Sonar Well Services, Inc.

Brine Well No: 04

083069

10/21/2008

Results of the Cavern Survey

By means of Echo-Sounding

In the cavern

Brine Well No: 04

Date: 10/21/2008

083069

Customer:

Gandy Corporation

Lovington, New Mexico

Responsible for the survey:

Surveyor:	HL Van Metre
Leadership:	Mr. Dale Gandy
Interpreter:	HL Van Metre
Control:	Mr. Richard Lawrence



Contents

Summary of results

Legend

Enclosures:

Volume (diagrams and lists)

Diameter and radii (diagrams and lists)

Perspective views

Maximum plots (top view)

Horizontal sections

Maximum plot (side view)

Vertical sections



Summary of results

Well details

All depths are given as: MD

Datum level for all depths: BHF

Shoe of the 4-1/2" - tubing: 1909.0 ft

Reference depth for ECHO-LOG: 1909.0 ft

Depth correction: 0.0 ft

Details of survey equipment

Measuring vehicle used: Grey WireLine

Tools used: XN02 – R185

General details

Number of runs: 1

Measured horizontal sections: 13

Measured tilted sections: 0

Lowest survey depth: 1944.0 ft



Maximum and minimum dimensions with ref. to the measuring axis

Reference direction: **magnetic north**

Determination out of 12 vertical sections derived from horizontally and tilted measured data at 1 5 degree intervals:

Minimum radius:	0.0 ft
Depth:	1945.1 ft
Direction:	0°

Maximum radius:	1.8 ft
Depth:	1911.0 ft
Direction:	180°

Highest point of cavern:	1910.0 ft
Horizontal distance:	1.1 ft
Direction:	0°

Lowest point of cavern:	1945.1 ft
Horizontal distance:	0.0 ft
Direction:	0°

Lowest point in the measuring axis: 1945.1 ft

Determination out of 13 horizontal sections in the depths between 1910 feet and 1944 feet at 5 degree intervals:

Maximum radius:	1.8 ft
Depth:	1911.0 ft
Direction:	100°

Maximum diameter:	3.3 ft
Depth:	1911.0 ft
Direction:	295 - 115°

Volume

Volume: 10.7 Bbls

Depth range: 1910.0 ft <--> 1945.0 ft



Interpretation

Supposing a rectilinear propagation of ultrasonic waves all recorded echo travel times were converted into distances by using the subsequent speeds of sound:

5902 feet/second in brine (measured)

In the case of recording several echoes along one trace of echo signals, the representative echo signal was selected according to the level of amplitude, transmission time, and density of measured points and the shape of the cavern.

Horizontal sections

13 horizontal sections at following measured depths are included as graphical plots in this report:

1910.0 ft	1911.0 ft	1912.0 ft	1914.0 ft	1916.0 ft	1918.0 ft	1920.0 ft
1925.0 ft	1930.0 ft	1935.0 ft	1940.0 ft	1942.0 ft	1944.0 ft	

The following 1 sections are constructed:

1945.0 ft

Tilted sections

0 sections recorded with tilted echo-transducer at following measured depths are presented in the vertical sections:

Vertical sections

The shape of the cavern was determined by interpretation of all horizontally and tilted measured data and is presented by 36 vertical sections in this report.



Maximum plots (top view)

The maximum plot presents the largest extension of the cavern in a top view. The first picture shows the areas of all horizontal sections and the area resulting out of the vertical sections (hatched). The resulting total area is shown in the second picture (cross hatching) together with the largest single area.

In both pictures the total centre of gravity of the cavern is shown with its distance and its direction referring to the measuring axis.

The total centre of gravity is derived out of the envelope, which is the connection line of the largest cavern extension in every direction

Perspective views

Several perspective drawings are included in this report to give a quick review of detailed relations.



LEGEND

- Measured point recorded with horizontal adjusted ultrasonic transducer
- Measured point recorded with tilted or vertical orientated ultrasonic transducer
- △ Interpolated point derived from the vertical sections
- Connection line between two measured points in order to calculate the volume
- Assumed connection line (in areas which are not sufficiently covered by measured points)
- N Magnetic north determined with compass inside the tool
(Magnetic compass in areas without tubing)
(Fibre gyro compass in areas with tubing)
- (N) Assumed north direction (for sections in magnetic disturbed surroundings without fibre gyro compass)
- a Longest extension in section
(Without considering of hidden leached pockets)
- b Longest extension in section perpendicular to a
(Without considering of hidden leached pockets)
- a/b Ratio of longest extensions in section which are perpendicular to each other
- (xx m²) Area in actual section resulting from hidden leached pockets
- r~ Average radius
- ☐ 021835 29.04 2002 Job number and survey date

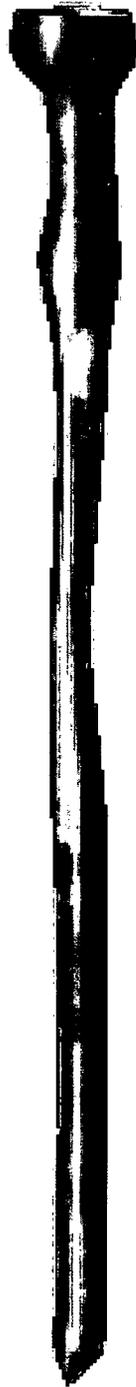


SOCON Sonar Well Services, Inc.

Brine Well No: 04

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10/21/2008



Brine Well No: 04 --> 0° <--



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Brine Well No: 04

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10/21/2008



Brine Well No: 04 --> 60° <--



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Brine Well No: 04

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10/21/2008



Brine Well No: 04 --> 120° <--

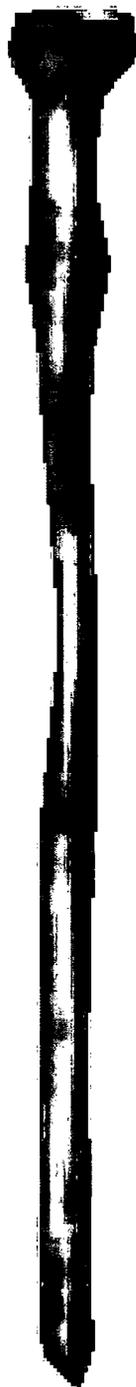


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Brine Well No: 04

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10/21/2008



Brine Well No: 04 --> 180° <--



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Brine Well No: 04

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Brine Well No: 04 --> 240° <--



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Brine Well No: 04

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10/21/2008



Brine Well No: 04 --> 300° <--

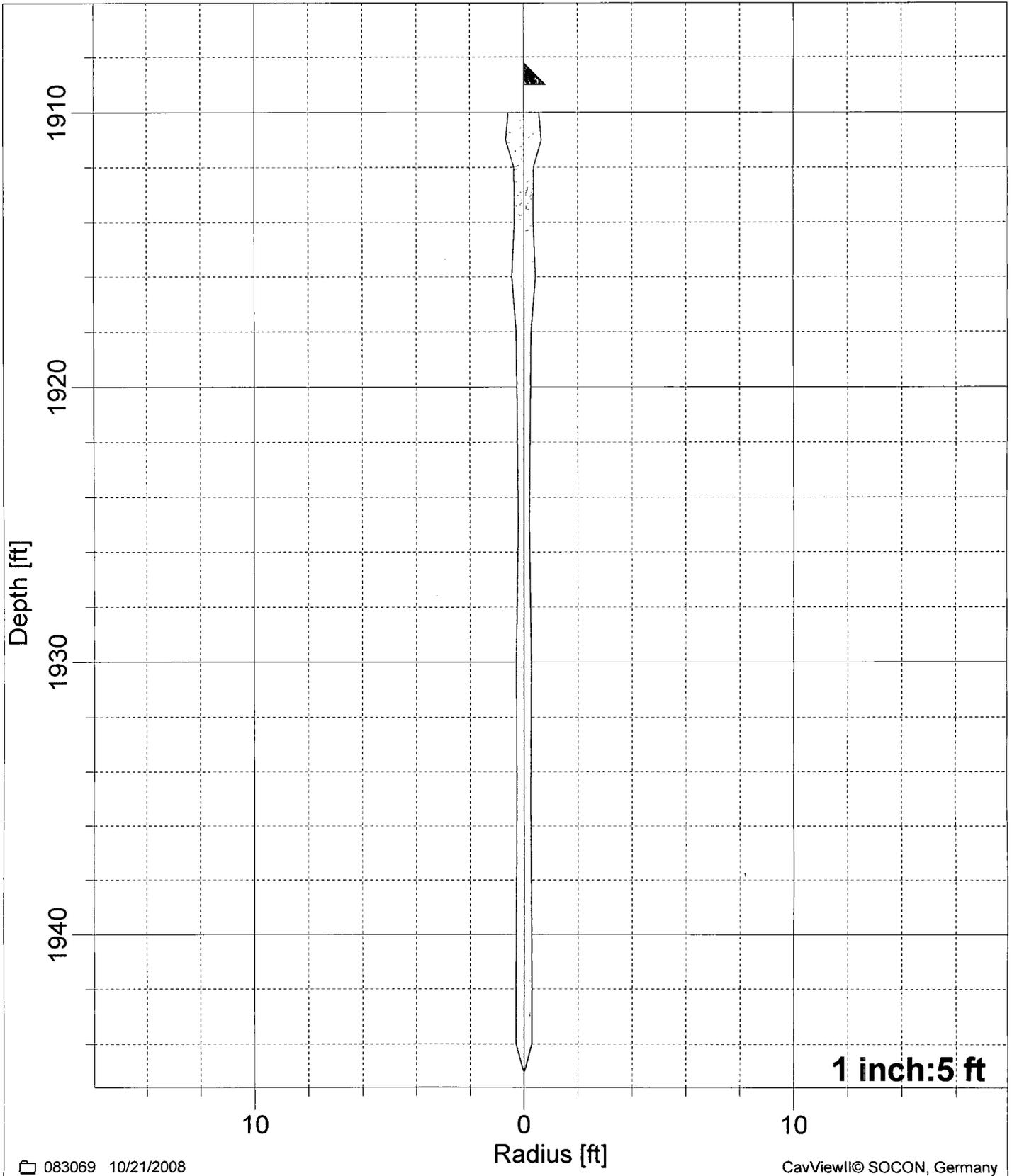


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Brine Well No: 04

AVERAGE RADIUS

10/21/2008



4-1/2" : 1909.0 ft

Average radius (10/21/2008)

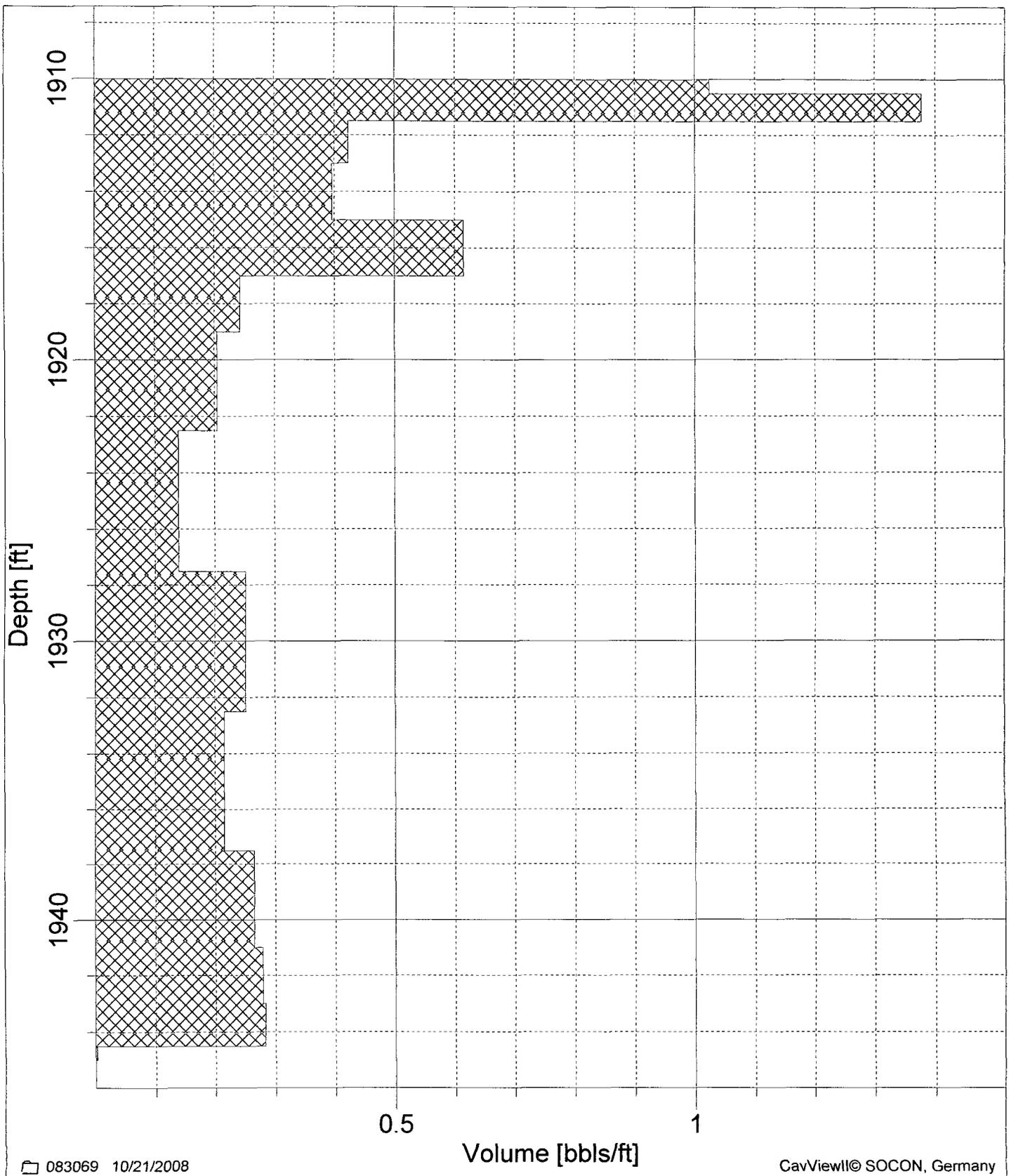


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Brine Well No: 04

PARTIAL VOLUME

10/21/2008



083069 10/21/2008

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 Partial volume



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Volume list

Brine Well No: 04

083069

10/21/2008

Depth [ft]	Radius [ft]	Area [ft ²]	Depth range [ft]		Volume [bbls]	
			from	to	partial	total
1910.0	1.4	6	1910.0	1910.5	1	1
1911.0	1.6	8	1910.5	1911.5	1	2
1912.0	0.9	2	1911.5	1913.0	1	3
1914.0	0.8	2	1913.0	1915.0	1	3
1916.0	1.0	3	1915.0	1917.0	1	5
1918.0	0.7	1	1917.0	1919.0	0	5
1920.0	0.6	1	1919.0	1922.5	1	6
1925.0	0.5	1	1922.5	1927.5	1	6
1930.0	0.7	1	1927.5	1932.5	1	8
1935.0	0.6	1	1932.5	1937.5	1	9
1940.0	0.7	1	1937.5	1941.0	1	10
1942.0	0.7	2	1941.0	1943.0	1	10
1944.0	0.7	2	1943.0	1944.5	0	11
1945.0	0.1	0	1944.5	1945.0	0	11

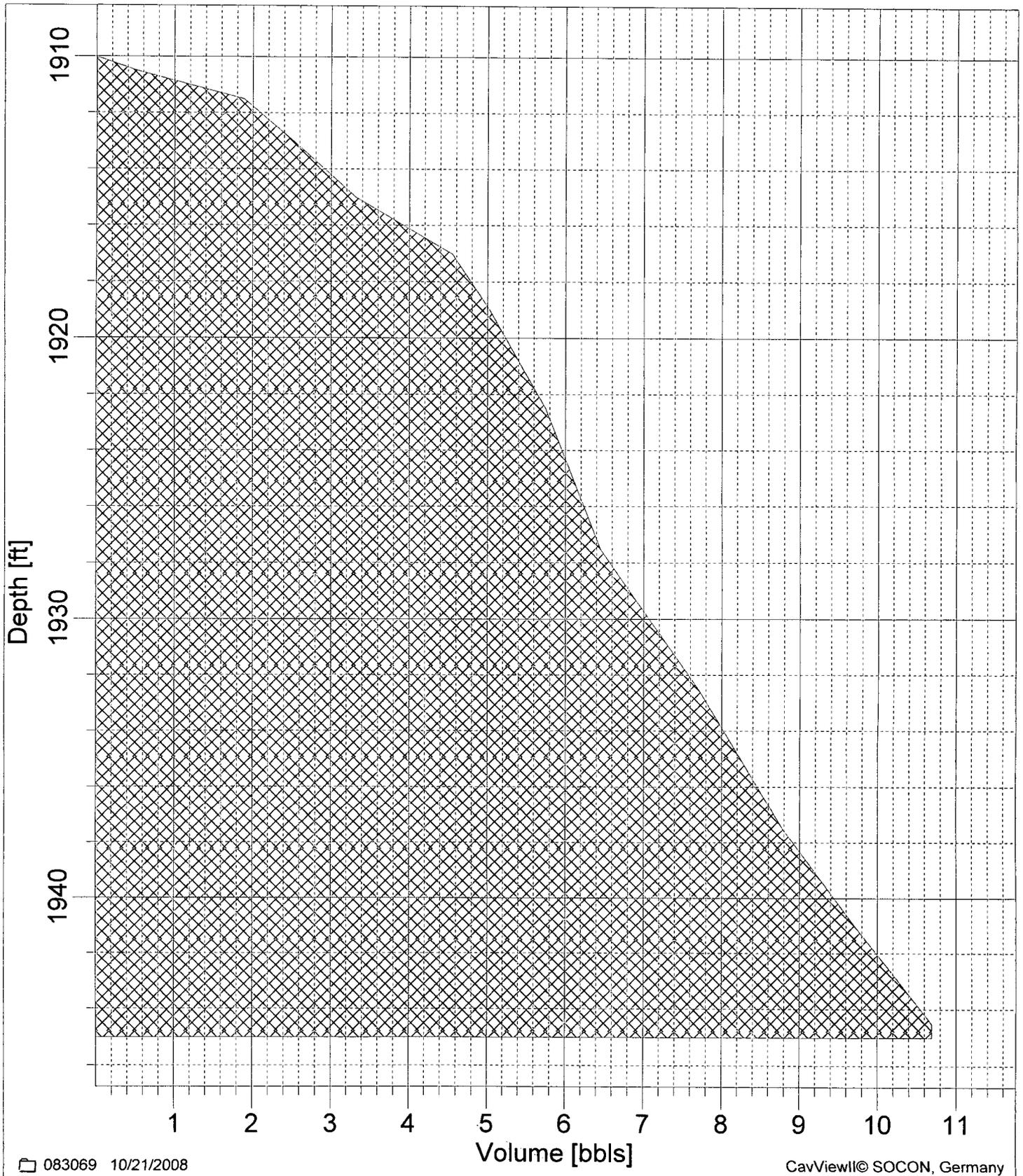


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Brine Well No: 04

TOTAL VOLUME

10/21/2008



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Volume [bbls]

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Total volume = 10.7 bbls



Table of volumes (foot by foot)

Job-No.: 083069, Name: Brine Well No: 04, Date: 10/21/2008

depth [ft]	volume [bbls]								
1910	0	1911	1	1912	2	1913	3	1914	3
1915	3	1916	4	1917	5	1918	5	1919	5
1920	5	1921	5	1922	6	1923	6	1924	6
1925	6	1926	6	1927	6	1928	7	1929	7
1930	7	1931	7	1932	8	1933	8	1934	8
1935	8	1936	8	1937	9	1938	9	1939	9
1940	9	1941	10	1942	10	1943	10	1944	11
1945	11								

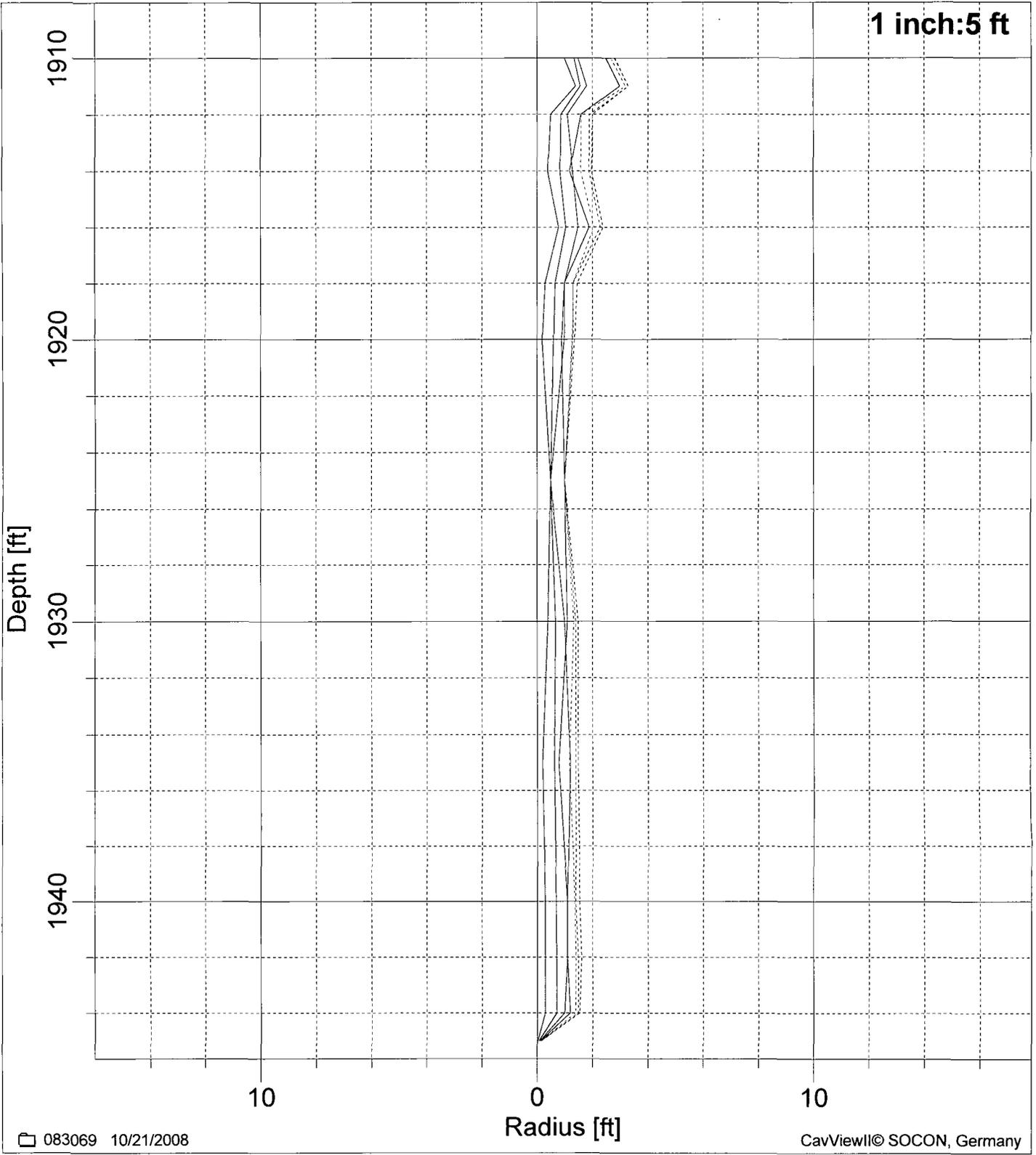


Brine Well No: 04

RADII / DIAMETERS

10/21/2008

1 inch:5 ft



083069 10/21/2008

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— Average radius	— Minimum radius	— Maximum radius
— Minimum diameter	— Maximum diameter	— Largest extension
— Largest perpendicular extension		



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Table of radii and diameters

Brine Well No: 04

083069

10/21/2008

10/21/2008

Depth [ft]	Radius [MIN]		Radius [MAX]		Diameter [MIN]		Diameter [MAX]	
	[ft]	[°]	[ft]	[°]	[ft]	[°]	[ft]	[°]
1910.0	1.0	332	1.5	85	2.5	152 <-> 332	2.8	60 <-> 240
1911.0	1.4	2	1.8	100	3.0	37 <-> 217	3.3	115 <-> 295
1912.0	0.5	261	1.1	75	1.6	69 <-> 249	1.9	10 <-> 190
1914.0	0.4	236	1.3	110	1.2	57 <-> 237	1.9	165 <-> 345
1916.0	0.8	242	1.5	155	1.9	17 <-> 197	2.3	160 <-> 340
1918.0	0.3	166	1.0	25	1.0	143 <-> 323	1.3	25 <-> 205
1920.0	0.2	221	1.0	35	0.9	131 <-> 311	1.3	35 <-> 215
1925.0	0.5	1	0.5	0	1.0	1 <-> 181	1.0	0 <-> 180
1930.0	0.4	196	1.0	80	1.1	17 <-> 197	1.4	130 <-> 310
1935.0	0.2	251	1.2	140	0.8	38 <-> 218	1.4	140 <-> 320
1940.0	0.3	236	1.1	120	1.1	15 <-> 195	1.4	120 <-> 300
1942.0	0.3	246	1.1	130	1.1	30 <-> 210	1.5	130 <-> 310
1944.0	0.3	251	1.0	65	1.2	5 <-> 185	1.5	140 <-> 320
1945.0	0.0	250	0.1	75	0.1	68 <-> 248	0.1	150 <-> 330



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Table of radii in N-E-S-W-NE-SE-SW-NW presentation

Brine Well No: 04

083069

10/21/2008

Depth [ft]	<R> [ft]	N [ft]	E [ft]	S [ft]	W [ft]	NE [ft]	SE [ft]	SW [ft]	NW [ft]
1910.0	1.4	1.1	1.5	1.5	1.3	1.3	1.5	1.4	1.1
1911.0	1.6	1.4	1.7	1.8	1.5	1.5	1.8	1.5	1.4
1912.0	0.9	0.7	1.1	1.1	0.5	1.0	1.1	0.7	0.5
1914.0	0.8	0.7	1.1	1.1	0.4	0.7	1.3	0.5	0.4
1916.0	1.0	0.9	1.3	1.1	0.8	1.1	1.3	0.9	0.8
1918.0	0.7	0.8	1.0	0.3	0.3	1.0	0.6	0.3	0.5
1920.0	0.6	0.7	0.9	0.3	0.2	1.0	0.5	0.2	0.4
1925.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
1930.0	0.7	0.6	1.0	0.5	0.4	0.9	0.8	0.4	0.5
1935.0	0.6	0.3	0.9	0.7	0.2	0.5	1.1	0.3	0.2
1940.0	0.7	0.6	1.0	0.6	0.3	0.8	1.0	0.4	0.3
1942.0	0.7	0.6	1.0	0.7	0.3	0.9	1.0	0.4	0.4
1944.0	0.7	0.6	1.0	0.7	0.4	0.9	1.0	0.4	0.4
1945.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0

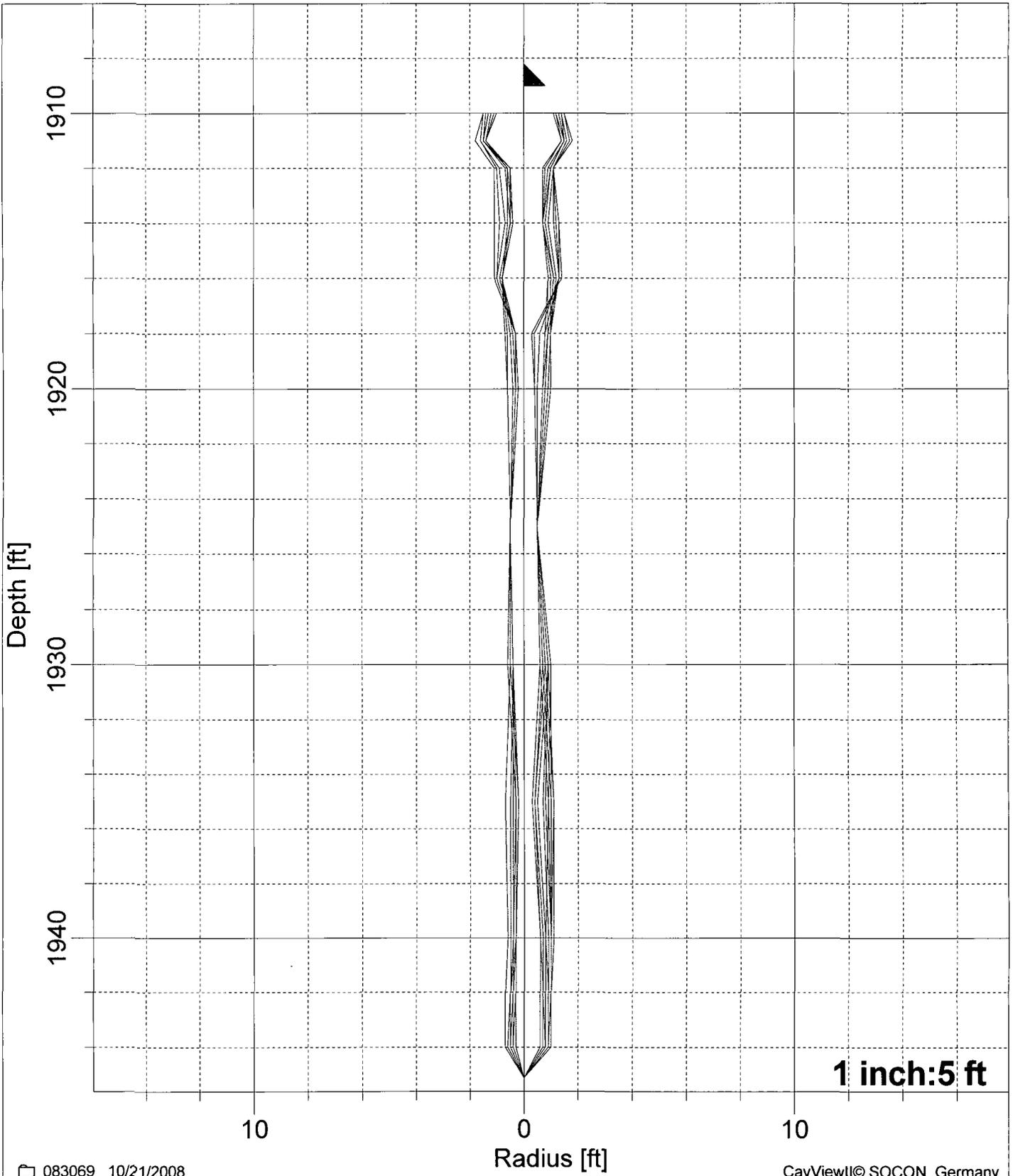


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Brine Well No: 04

MAXPLOT

10/21/2008



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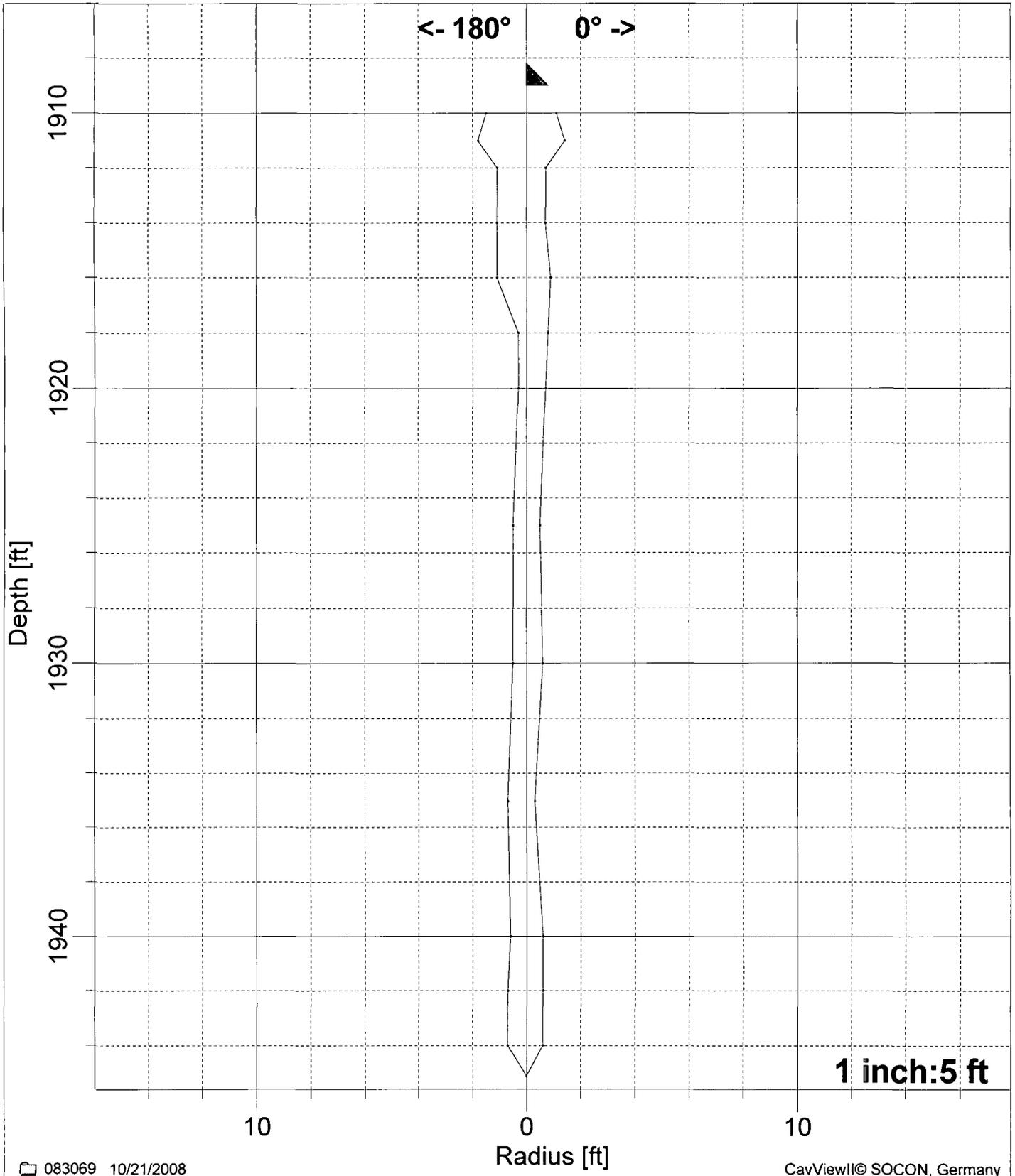
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4-1/2" : 1909.0 ft

Brine Well No: 04

10/21/2008



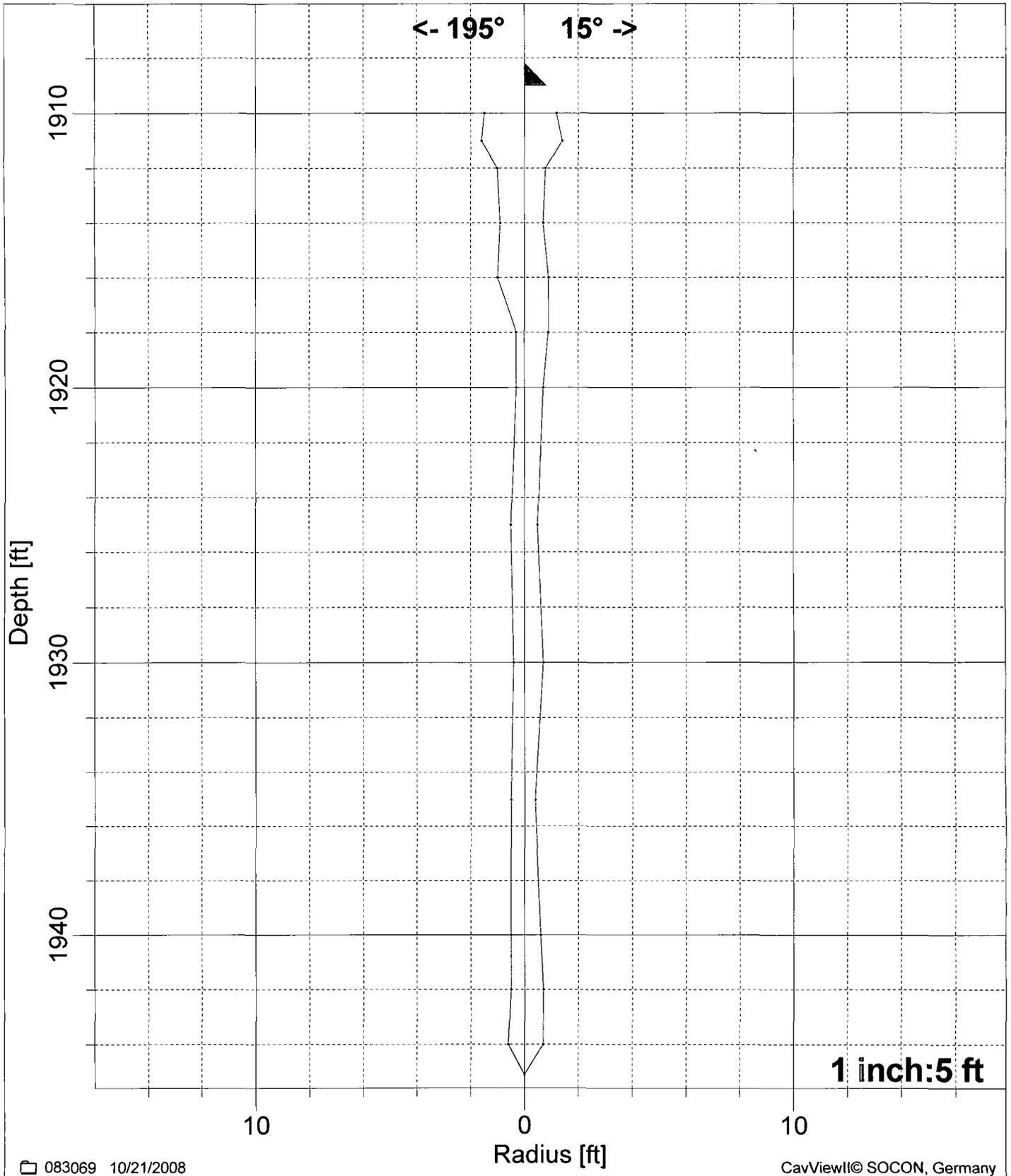
(10/21/2008)

4-1/2" : 1909.0 ft



Brine Well No: 04

10/21/2008



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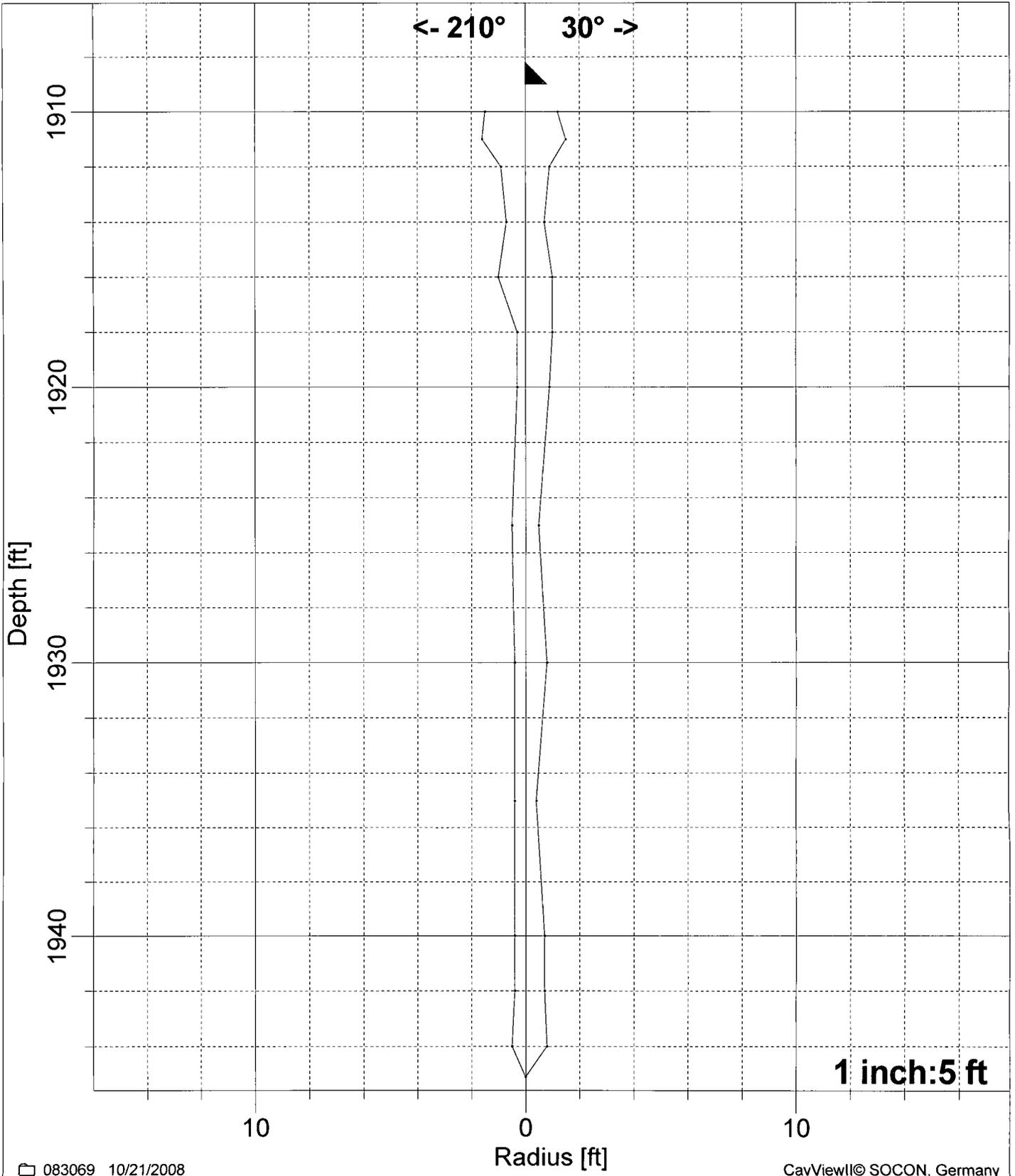
(10/21/2008)

4-1/2" : 1909.0 ft



Brine Well No: 04

10/21/2008



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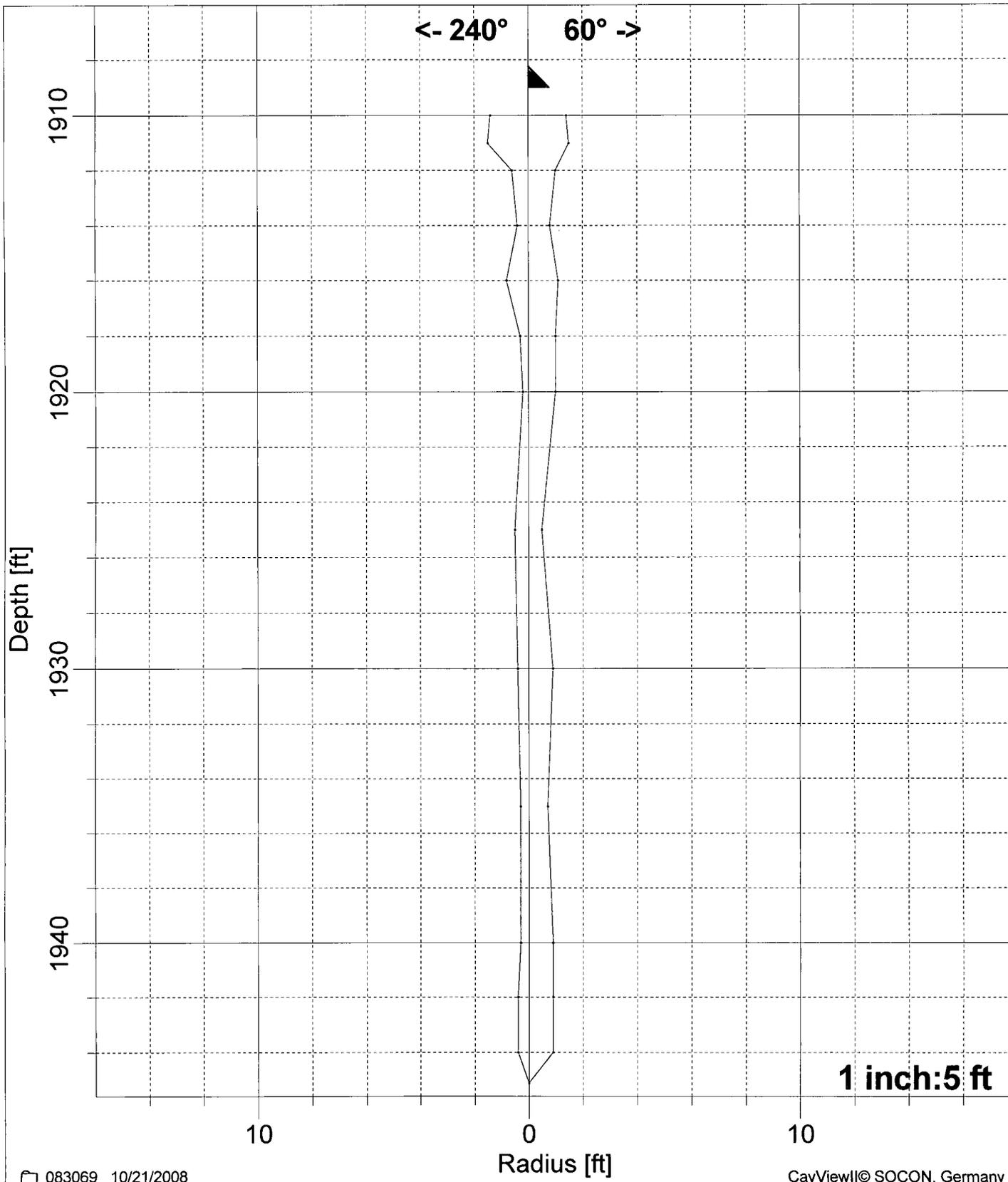
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(10/21/2008)

4-1/2" : 1909.0 ft

Brine Well No: 04

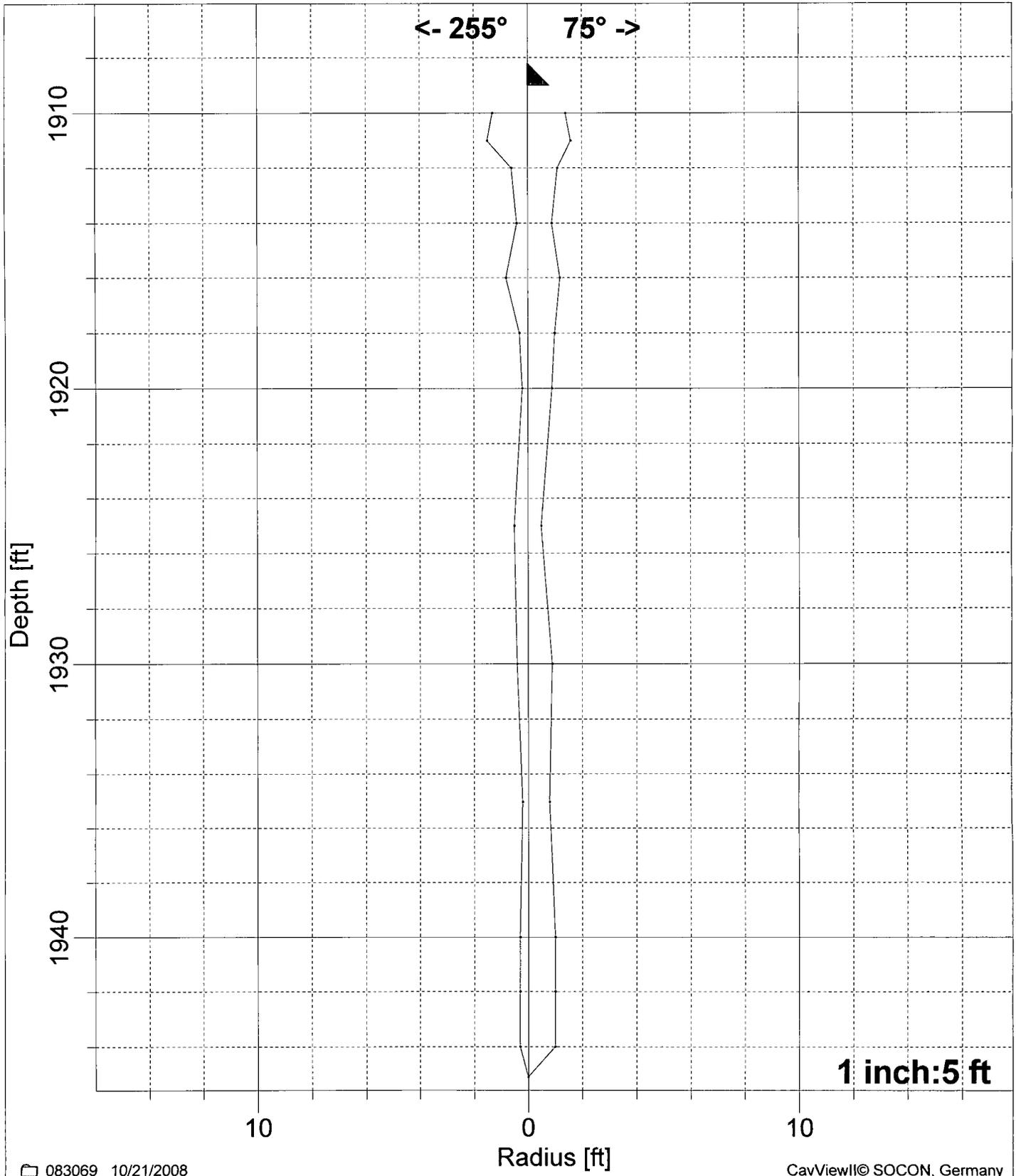
10/21/2008





Brine Well No: 04

10/21/2008



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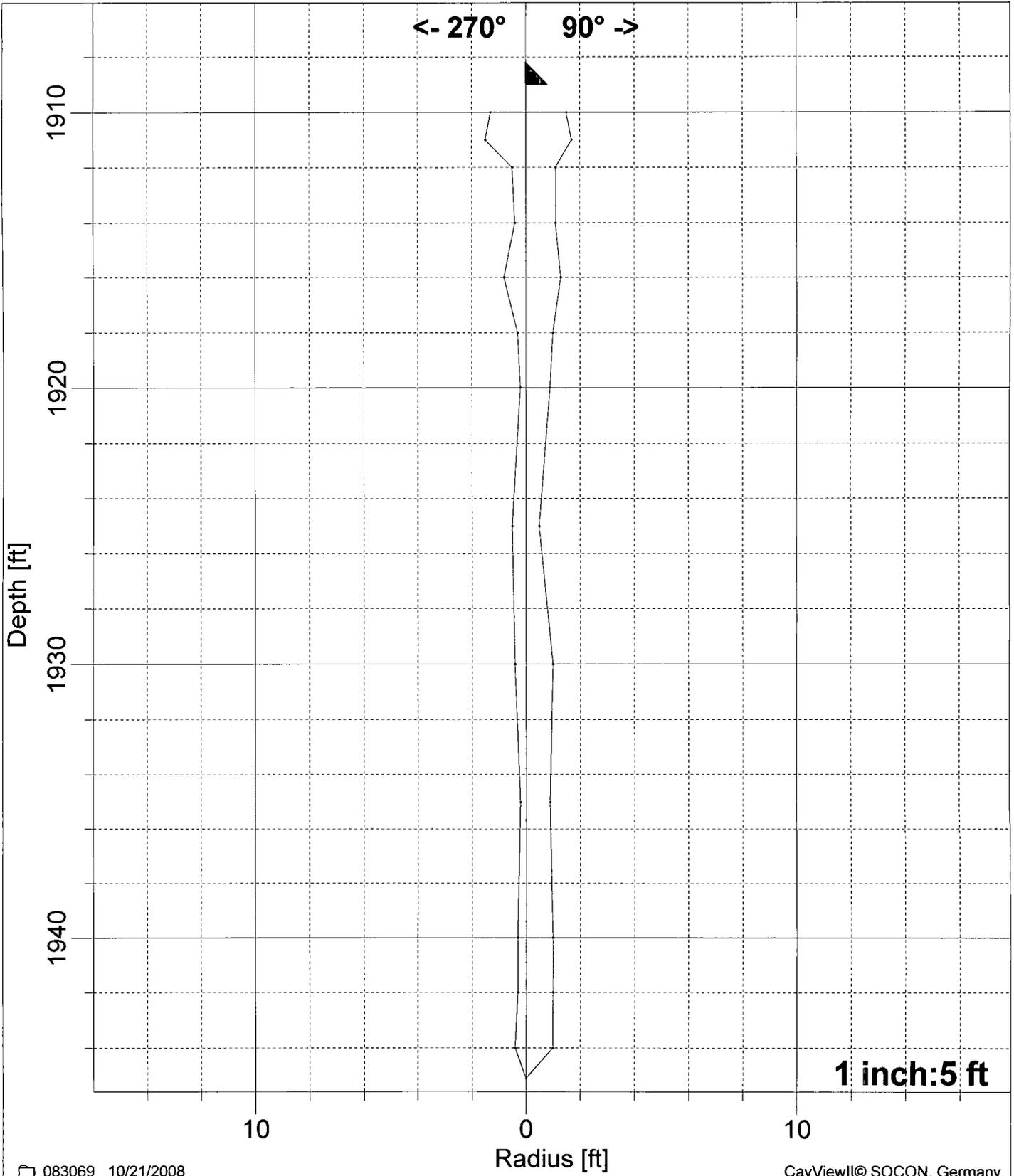
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(10/21/2008)

4-1/2" : 1909.0 ft

Brine Well No: 04

10/21/2008



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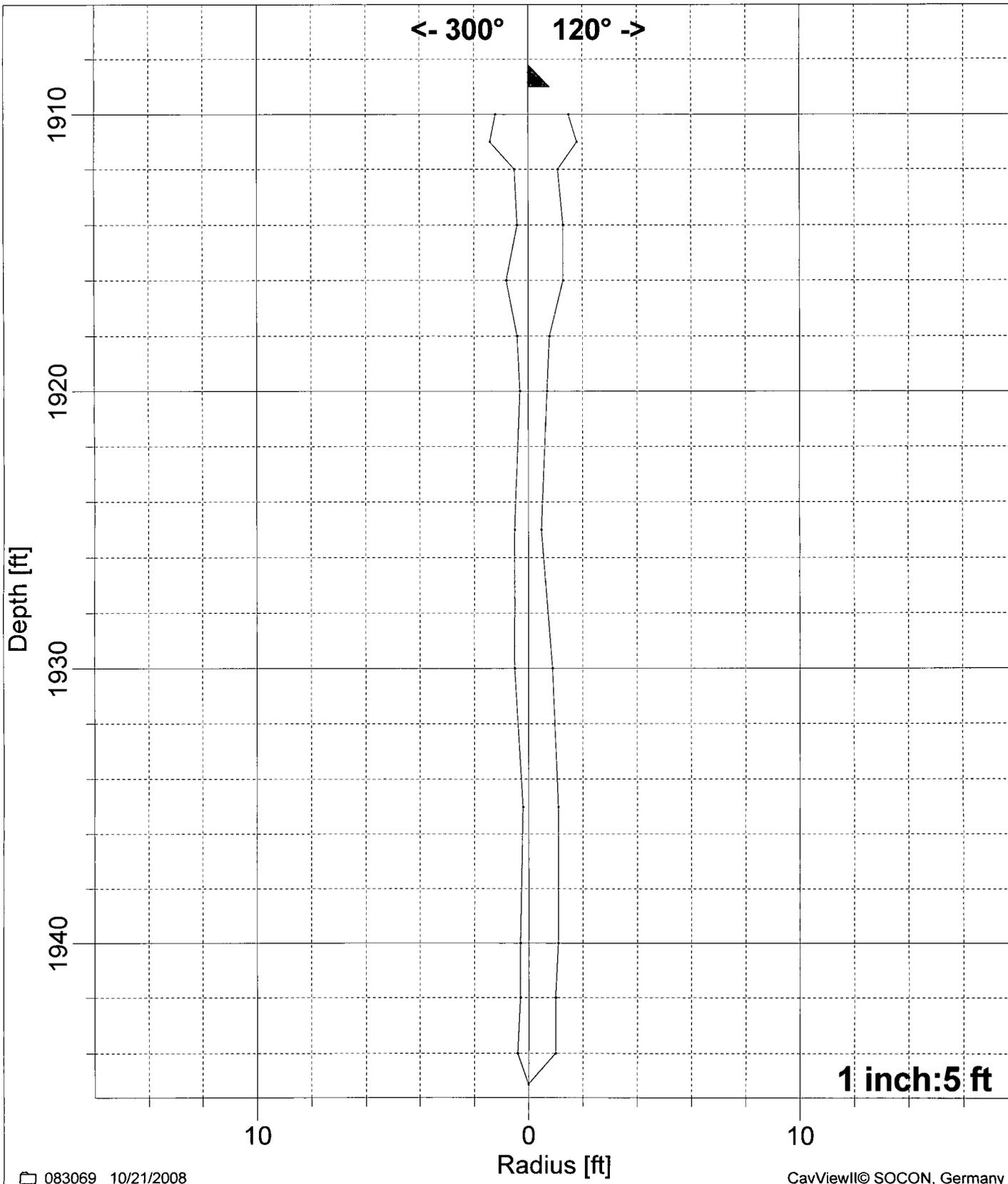
(10/21/2008)

4-1/2" : 1909.0 ft



Brine Well No: 04

10/21/2008



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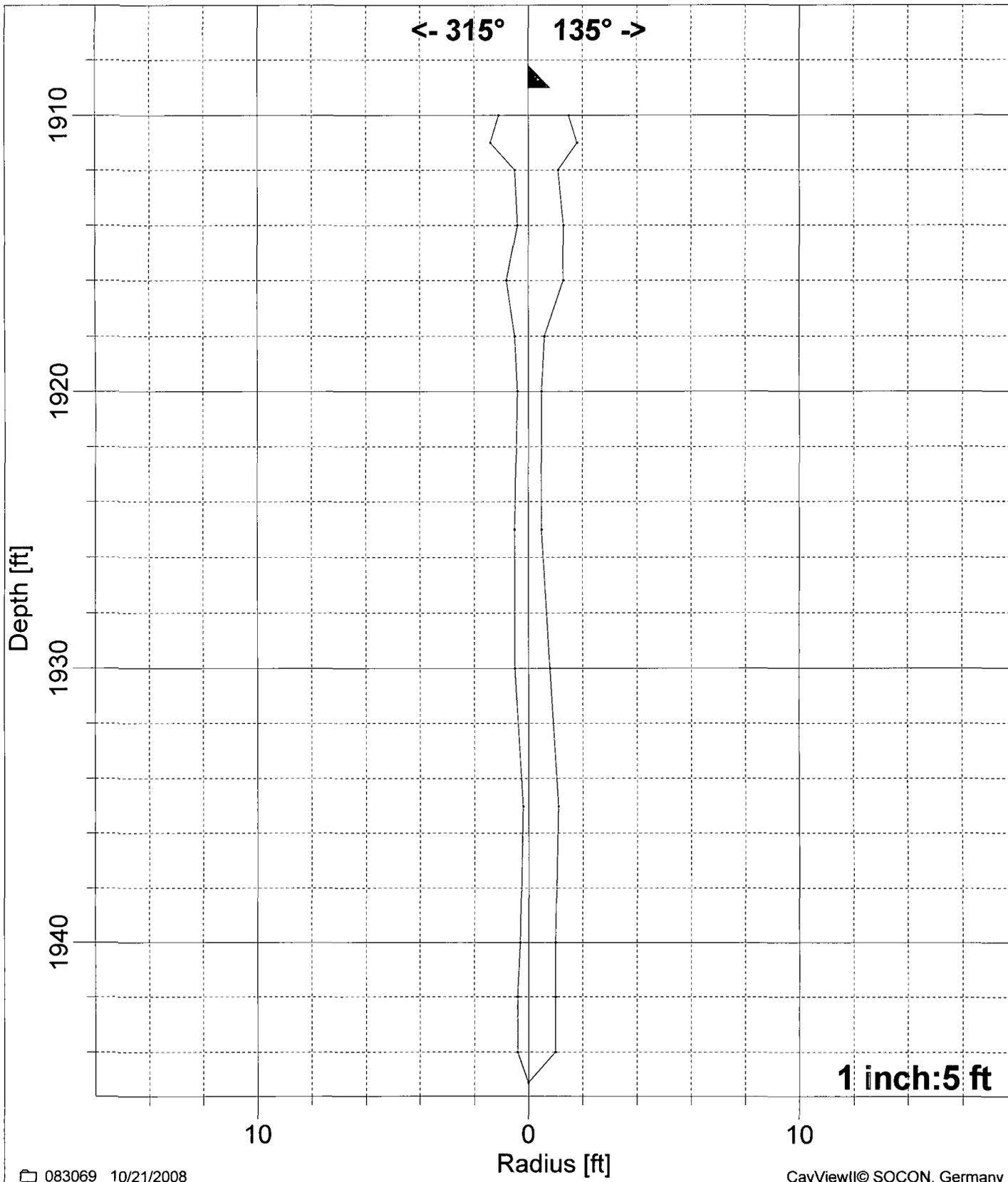
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(10/21/2008)

4-1/2" : 1909.0 ft

Brine Well No: 04

10/21/2008



< - 315° 135° ->



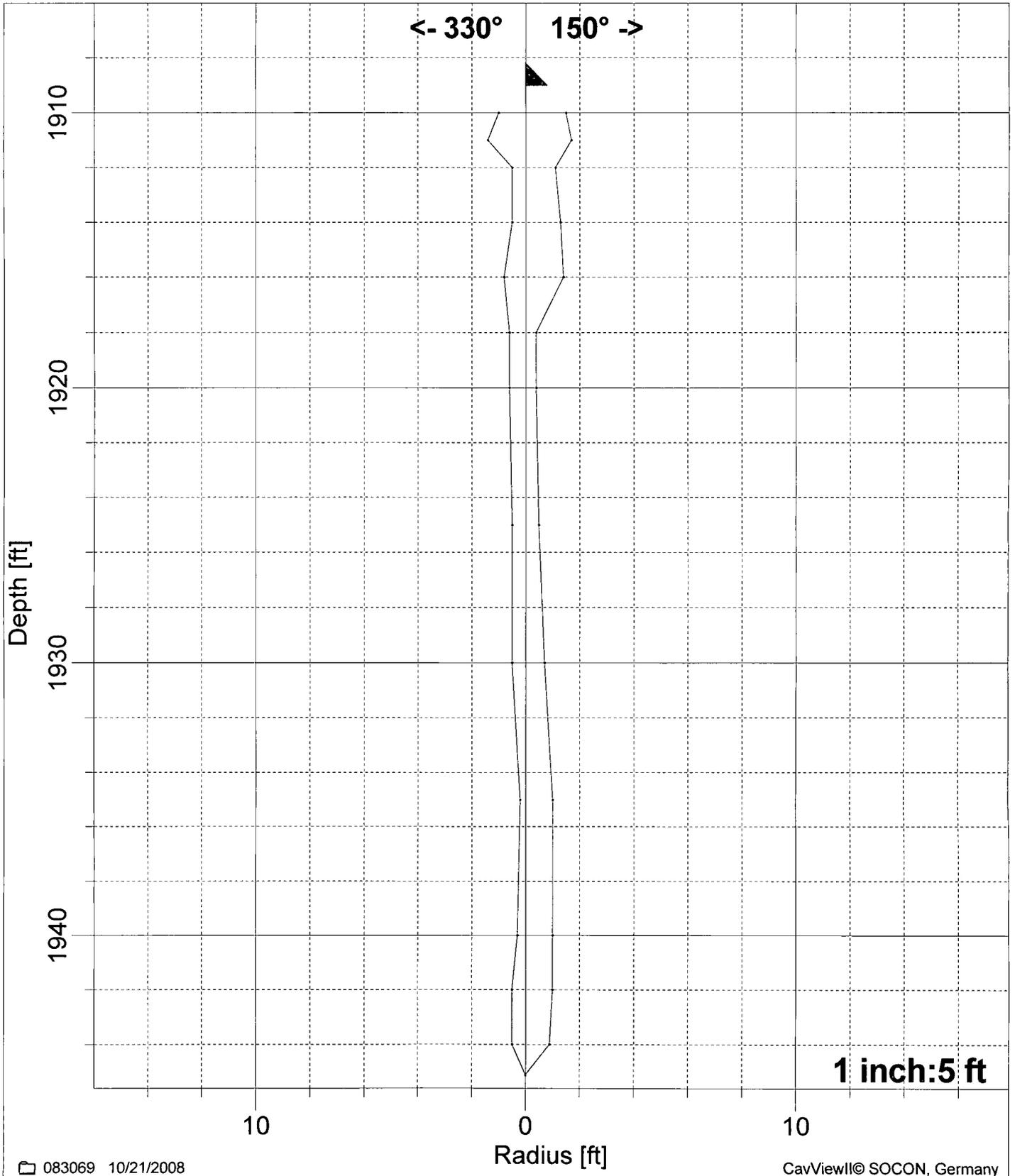
(10/21/2008)

4-1/2" : 1909.0 ft



Brine Well No: 04

10/21/2008



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(10/21/2008)

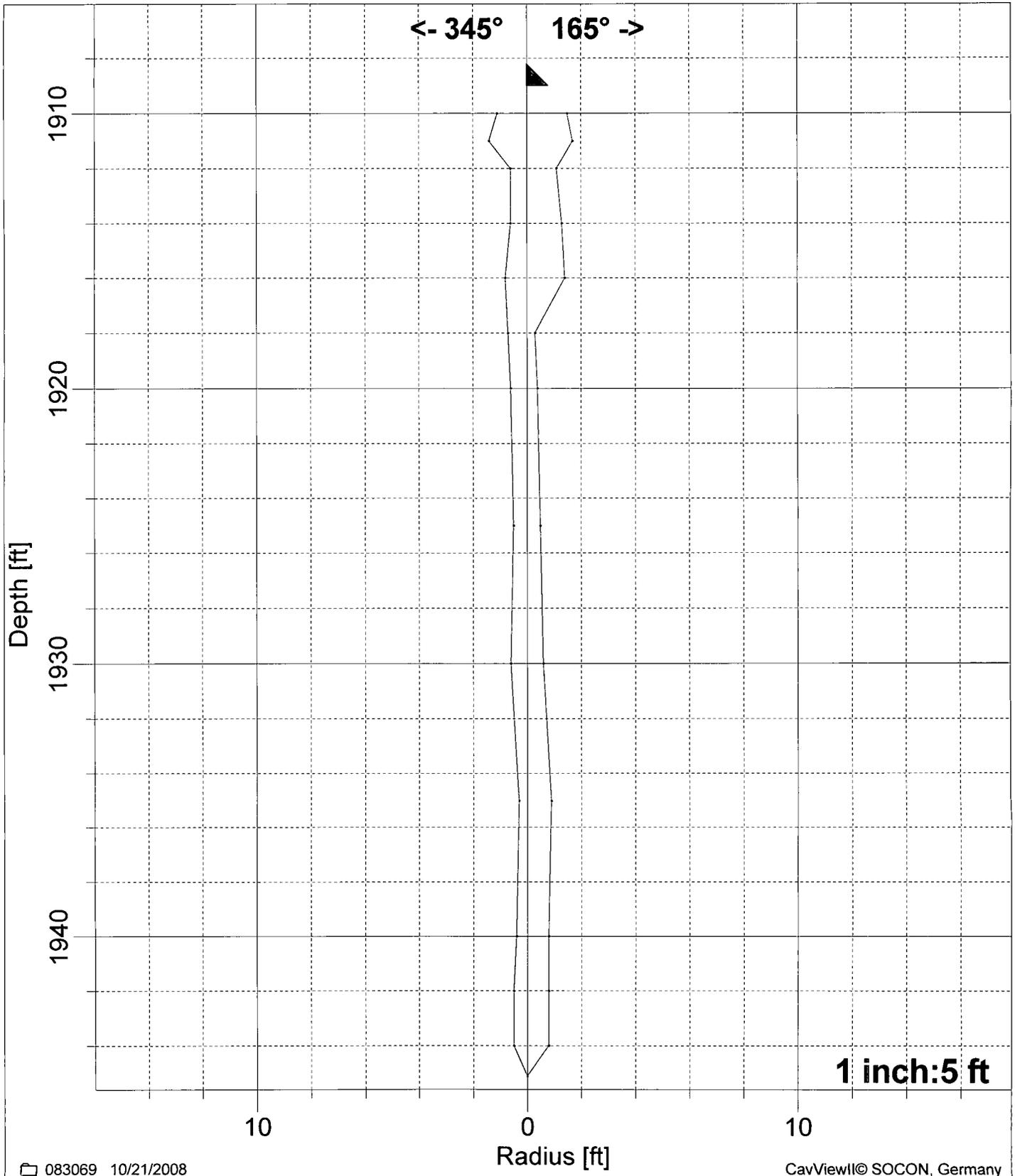
4-1/2" : 1909.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 04

10/21/2008



(10/21/2008)

4-1/2" : 1909.0 ft



SOCON Sonar Well Services, Inc.

Brine Well No: 04

083069

10/21/2008

HORIZONTAL SECTIONS

Brine Well No: 04

Report No.: 083069

Utilized speed of sound: 5902 feet/second

Measuring date: 10/21/2008

Scale: 1: 50

Horizontal sections measured at following depths:

1910.0 ft	1911.0 ft	1912.0 ft	1914.0 ft	1916.0 ft	1918.0 ft	1920.0 ft
1925.0 ft	1930.0 ft	1935.0 ft	1940.0 ft	1942.0 ft	1944.0 ft	

The following 1 section is constructed:

1945.0 ft

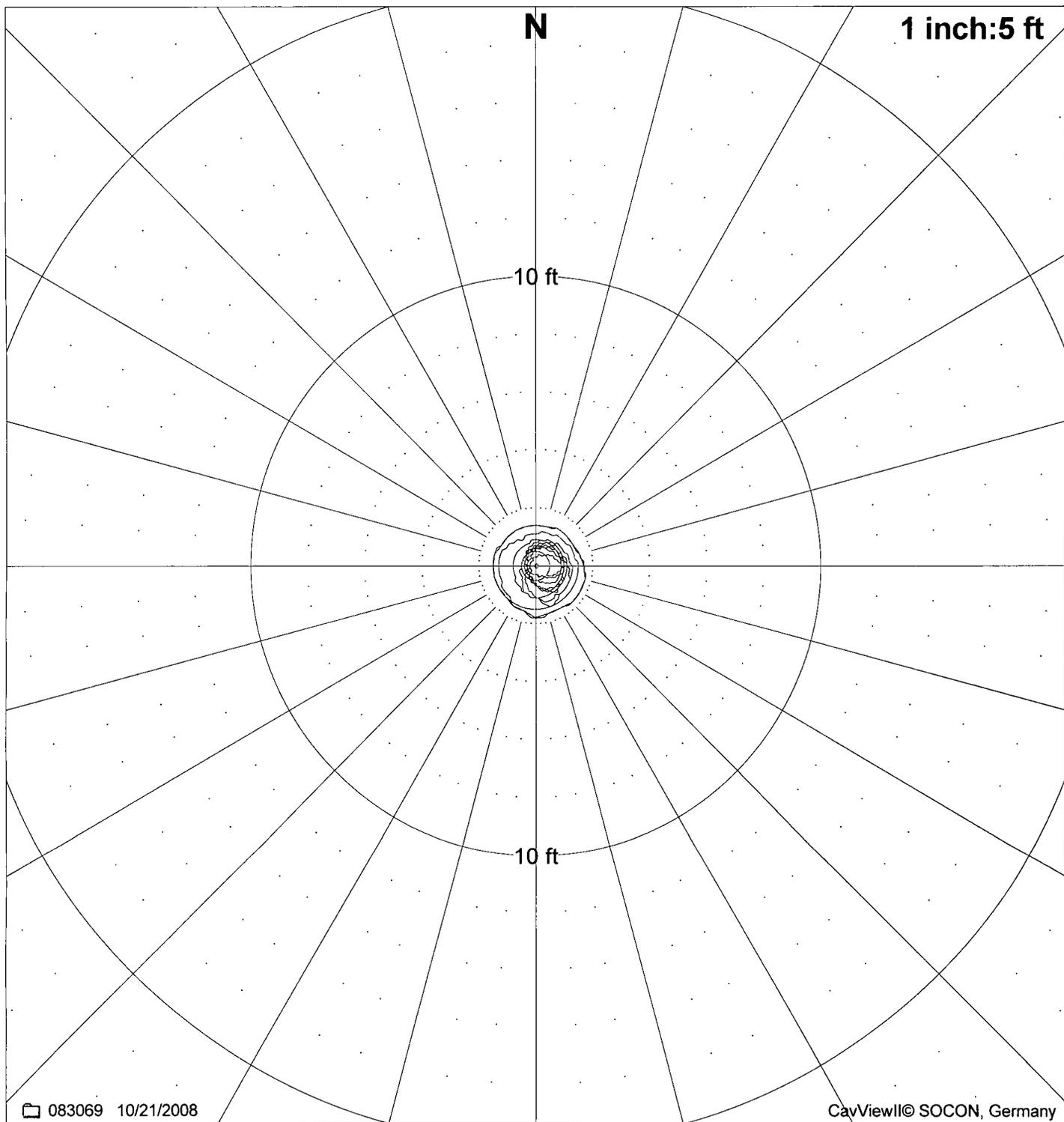


SOCON Sonar Well Services, Inc.

Brine Well No: 04

MAXPLOT

10/21/2008



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Vertical maximum plot
 Horizontal sections
 a/b

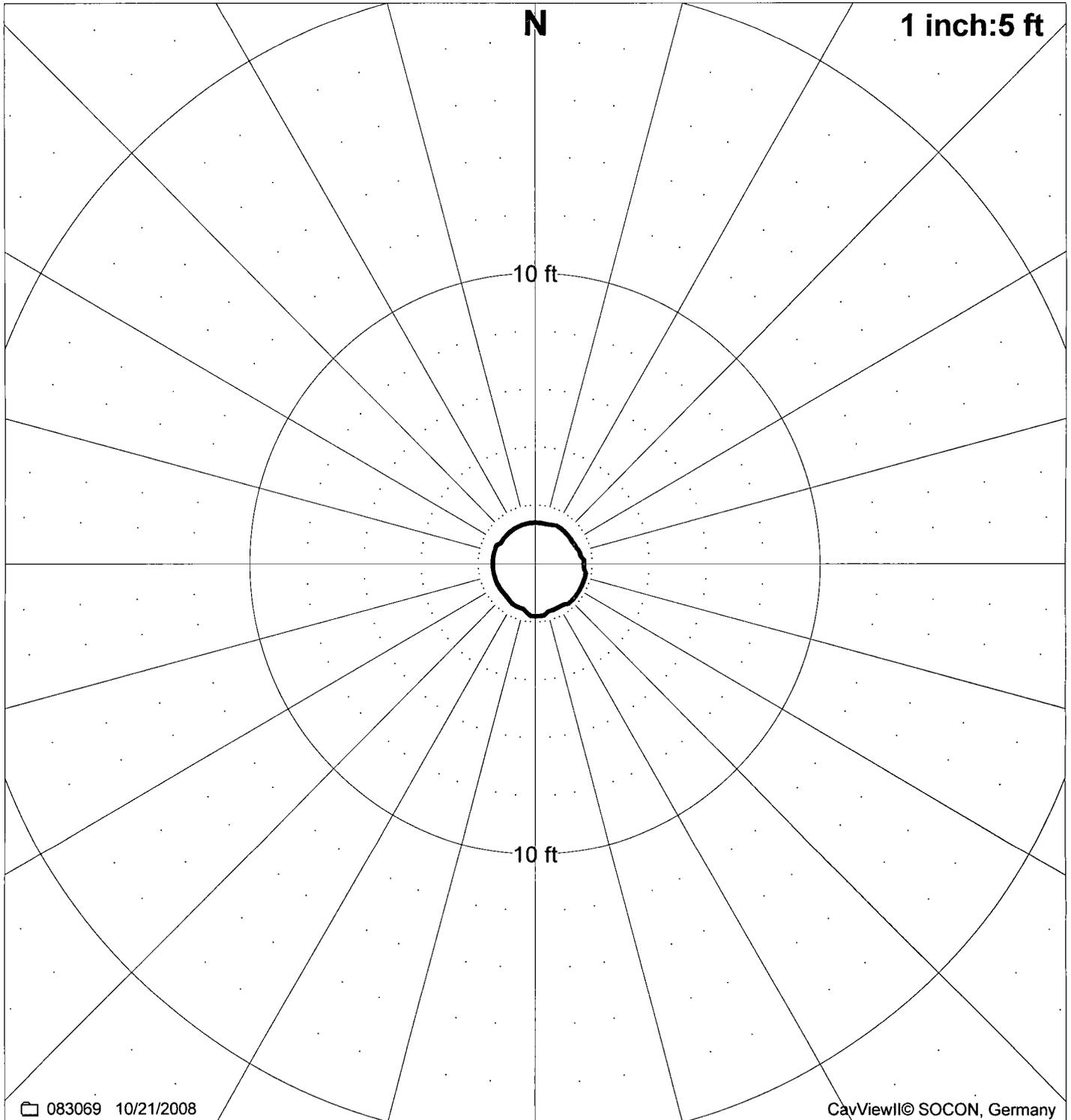
$d_{max}: 3.3 \text{ ft } 295^\circ \leftrightarrow 115^\circ$
 $r_{min}: 1.4 \text{ ft } \rightarrow 2^\circ$
 $r_{\sim}: 1.6 \text{ ft}$
 $r_{max}: 1.8 \text{ ft } \rightarrow 100^\circ$
 $a/b = 1.044$
 $a = 3.3 \text{ ft } (109^\circ-290^\circ)$
 $b = 3.2 \text{ ft } (38^\circ-185^\circ)$
 Area from vertical sections: 8 ft², Area from horizontal and vertical sections: 8 ft²



Brine Well No: 04

MAXPLOT

10/21/2008



a/b

Horizontal/vertical maximum plot

Largest single area

d_{max} : 3.3 ft 295° <--> 115° r_{min} : 1.4 ft -> 2° r_{\sim} : 1.6 ft r_{max} : 1.8 ft -> 100°

a/b = 1.044 a = 3.3 ft (109°-290°) b = 3.2 ft (38°-185°)

Largest single area: 8 ft² in depth: 1911.0 ft, Area from horizontal and vertical sections: 8 ft²



Table of radii

Brine Well No: 04

083069

10/21/2008

Depth: 1930.0 ft

[°]

Radii in [ft]

0	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9
50	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0
100	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7
150	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4
200	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
250	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
300	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6
350	0.6	0.6								

Depth: 1935.0 ft

[°]

Radii in [ft]

0	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5
50	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.9	0.9	1.0
100	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.2	1.1
150	1.0	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.5	0.5
200	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
250	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
300	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
350	0.3	0.3								

Depth: 1940.0 ft

[°]

Radii in [ft]

0	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8
50	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0
100	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0	1.0
150	1.0	0.9	0.9	0.8	0.8	0.7	0.6	0.6	0.6	0.5
200	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
250	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
300	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
350	0.5	0.5								

Depth: 1942.0 ft

[°]

Radii in [ft]

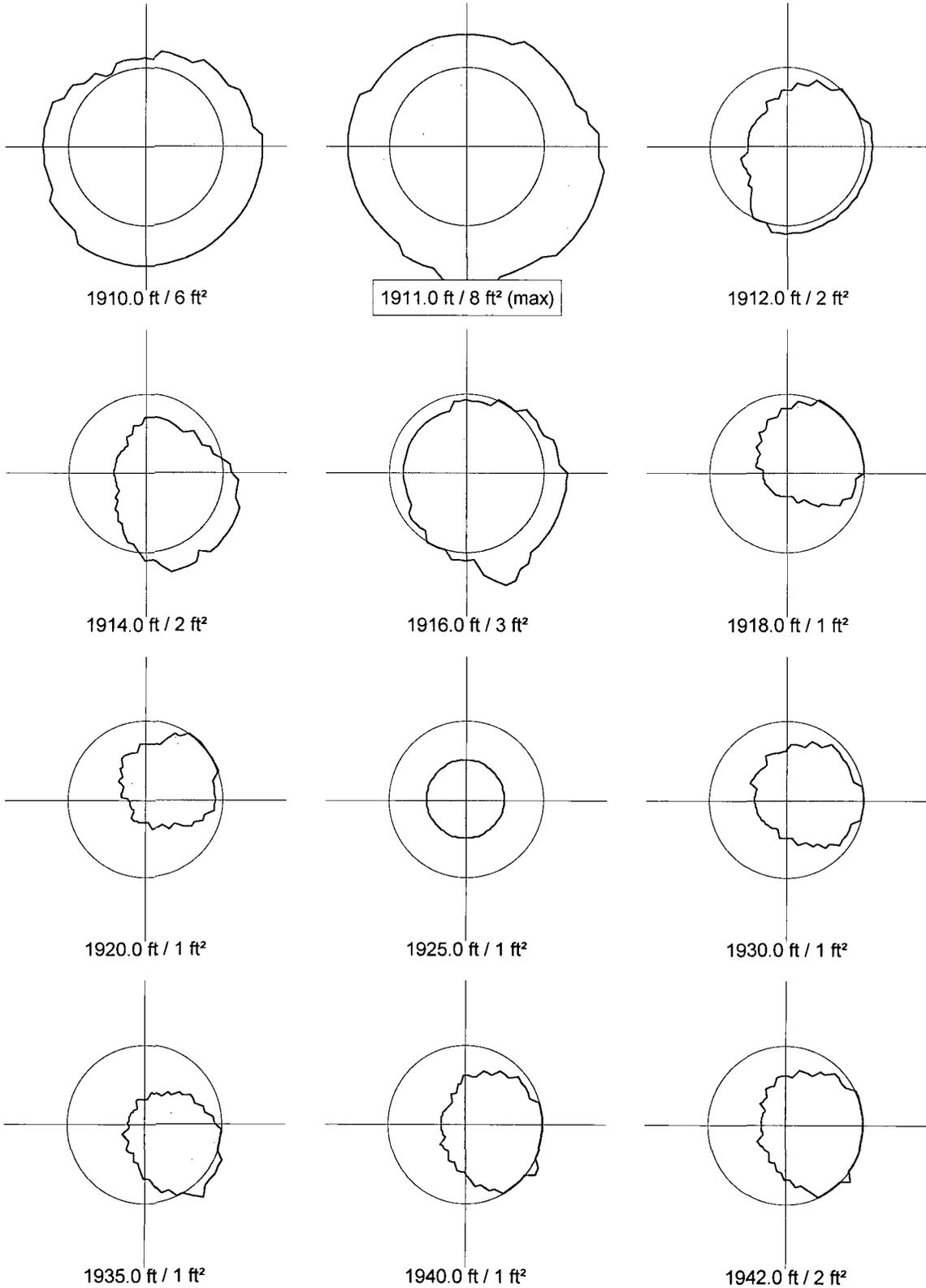
0	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.9
50	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
100	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0
150	1.0	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5
200	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
250	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
300	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5
350	0.6	0.6								



SOCON Sonar Well Services, Inc.

Horizontal slices 1 - 12

□ Cavity: Brine Well No: 04 Report number: 083069 Date: 10/21/2008



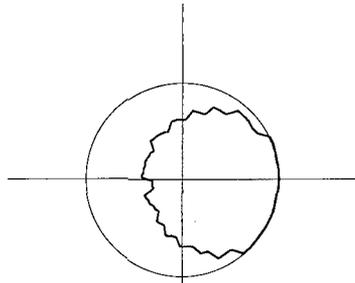
The distance between 2 circles equals 1 ft



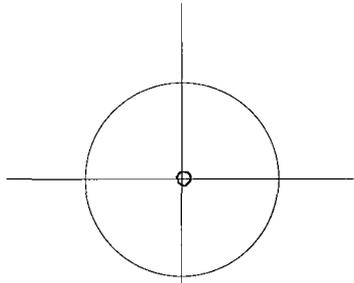
SOCON Sonar Well Services, Inc.

Horizontal slices 13 - 14

Cavity: Brine Well No: 04 Report number: 083069 Date: 10/21/2008



1944.0 ft / 2 ft²



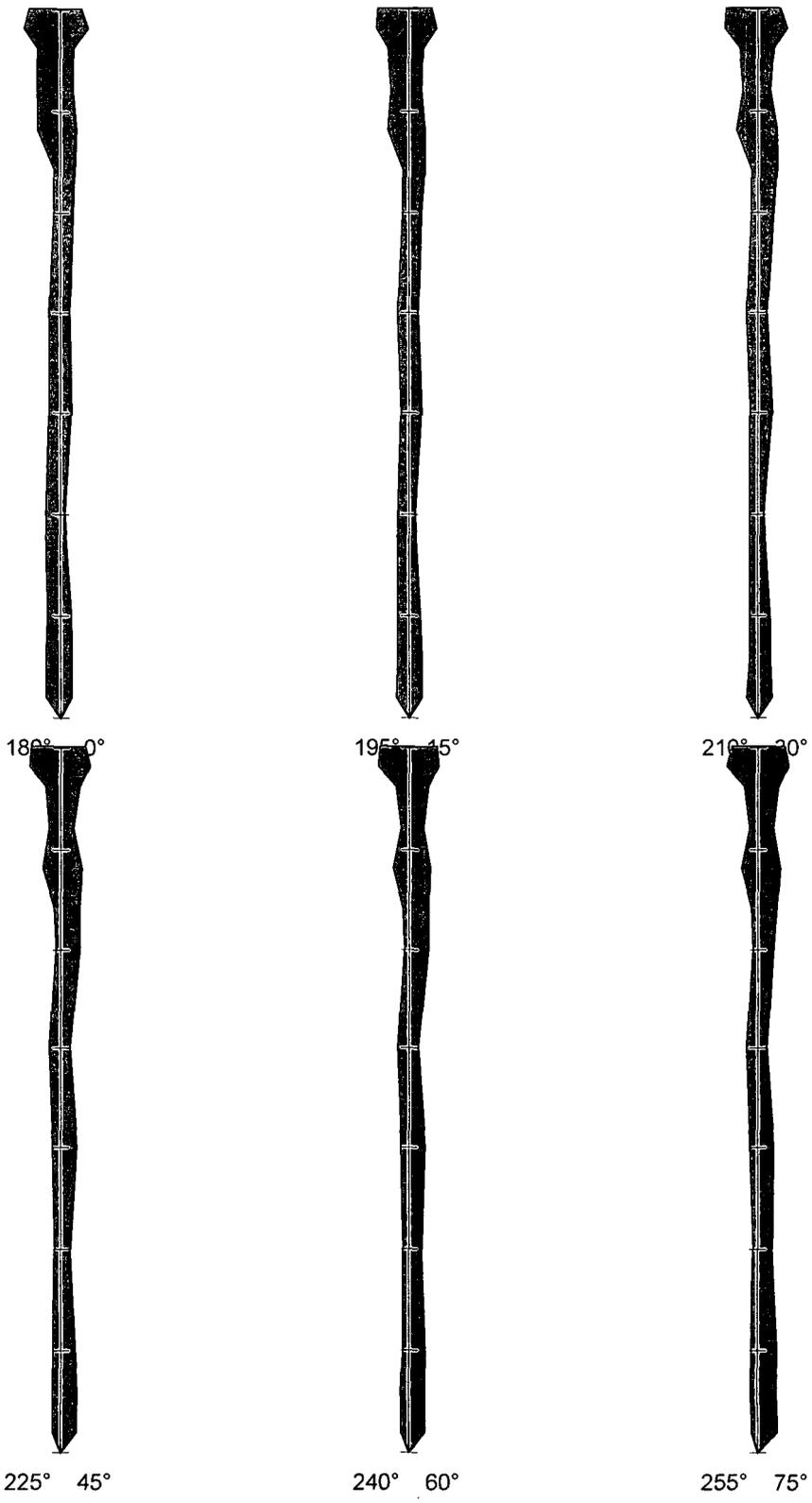
1945.0 ft / 0 ft²



SOCON Sonar Well Services, Inc.

Vertical slices 1 - 6

█ Cavity: Brine Well No: 04 Report number: 083069 Date: 10/21/2008



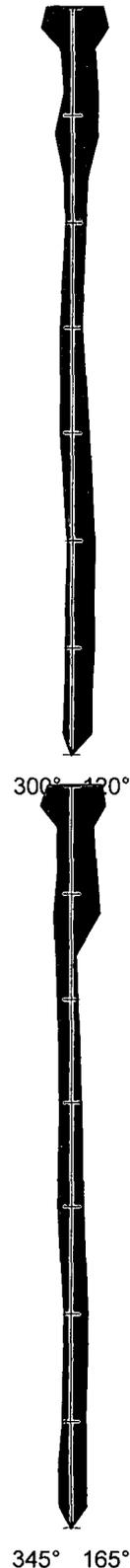
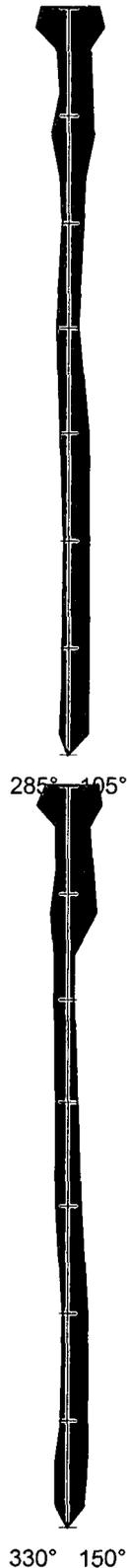
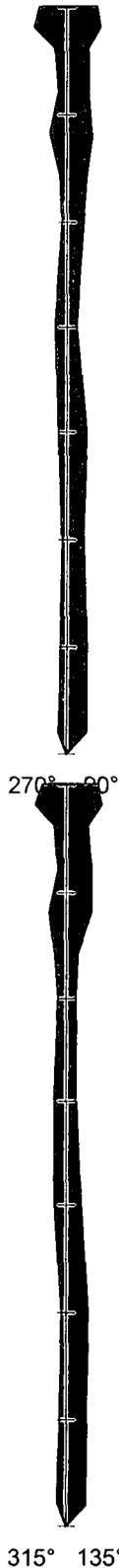
Range from 1910 ft to 1945 ft, step 5 ft



SOCON Sonar Well Services, Inc.

Vertical slices 7 - 12

█ Cavity: Brine Well No: 04 Report number: 083069 Date: 10/21/2008



Range from 1910 ft to 1945 ft, step 5 ft

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, November 12, 2008 11:50 AM
To: 'ziatr transports@gmail.com'; 'jrmillett@gmail.com'; 'Patterson, Bob'; Philliber, Mark; 'rharrismn@aim.com'; 'gandy2@leaco.net'; 'David Pyeatt'; 'garymschubert@aol.com'
Cc: Price, Wayne, EMNRD; Sanchez, Daniel J., EMNRD; Hill, Larry, EMNRD; Gum, Tim, EMNRD
Subject: Brine Well Sonar Testing Requirement with this season's upcoming MIT Schedule 2009

Gentlemen:

Re: MITs and OCD Sonar Test Requirement

Good morning. It is that time of season when the OCD requests your proposed MIT schedule. The OCD is requiring a sonar test in addition to the MIT this season. The OCD objective is to complete the MITs on or before July 31, 2009. If circumstances require it, the deadline for MITs may be extended to on or before October 31, 2009. Please contact me within 30 days to schedule your MIT and sonar test with date and time that you prefer. Note that brine well operators scheduled for the annual OCD 4-hr. formation MIT may conduct the EPA 5-Yr. 30 minute MIT (+/- 10% to pass) at 300 – 500 psig on casing in lieu of the OCD annual formation MIT this season.

After reviewing the site files and your responses to the recent OCD questionnaire following the Jims Water Service (BW-5) brine well collapse SE of Artesia in Eddy County on 7/16/2008, and the more recent collapse at Loco Hills (BW-21) in Eddy County on 11/3/2008, the OCD is requiring Sonar Testing along with your MIT this season to assess the configuration of your brine well cavern and any threats to public health and safety in your areas. The OCD is focused on the maturity of brine wells and the "Calculation" from the recent questionnaire attempts to assess brine well maturity by comparing the total brine production relative to the depth of the brine well casing shoe. This is one of the reasons why fresh water and brine well production record reporting to the OCD is so critical. Any operators that are planning to plug and abandon their brine wells are required by the OCD to conduct a sonar test of the well in advance of plugging and abandonment. Also, the OCD requires that the brine cavern be filled with brine fluid as this adds structural stability to the cavern and well. This will be required in a C-103 approved with conditions by the OCD. Currently, 3 brine well operators have been required by the OCD to conduct sonar testing within 30 days due to the maturity issue mentioned above. The OCD is continuing to assess its EPA Class III Brine Well program and will keep you updated on improvements and/or changes as needed.

If you feel that your brine well is too new to require sonar testing or a sonar was recently completed at your brine well, please provide the basis for requesting an exemption to this OCD sonar test requirement ASAP for OCD approval.

Please contact me if you have questions. Thanks in advance for your cooperation in this matter.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



OIL CONSERVATION DIVISION BRINE WELL INFORMATION REQUEST

GENERAL INFORMATION:	
Operator Name <u>Gandy Corp</u>	Well Name(s) <u>Edison St. #1</u>
API Number <u>30-025-26883</u>	Brine Well Permit # <u>BW-04</u>
Date Permit Expires? <u>2011</u>	
Location: Section <u>31</u> Ts <u>16</u> Rg <u>35</u>	
FNL _____	FSL <u>567</u> FEL _____ FWL <u>162</u>
GPS of well(s): Lat: <u>32° 52' 23"</u> Long: <u>103° 30' 16"</u>	
<u>unitm</u>	
Have you reviewed and understand all of your permit conditions? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Are you presently deficient of any condition in your permit? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input checked="" type="checkbox"/>	
Do you operate below grade tanks or pits at the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Do all tanks, including fresh water tanks, have secondary containment? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Do you think you have the expertise, knowledge and general understanding of what causes a brine well to collapse? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Do you think OCD should provide guidelines on subsidence and collapse issues? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
SITING INFORMATION: Please provide the following information and depict on 7.5 minute (1": 2000') USGS Quad Map. Limit search to one mile radius.	
Is the brine well located within a municipality or city limits? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Distance and direction to nearest permanent structure, house, school, etc. if less than one mile: <u>Attached</u>	
Distance and direction to nearest water well if less than one mile: <u>Attached</u>	
Distance to nearest watercourse(s), floodplain, playa lake(s), or man-made canal(s) or pond(s) if less than one mile: <u>Attached</u>	
Distance and direction to nearest known karst features or mines if less than one mile: <u>Attached</u>	



Distance and direction to nearest producing oil or gas well(s) <i>if less than one mile</i> : Provide API Number: <i>Attached</i>
Distance and direction to nearest tank battery(ies) <i>if less than one mile</i> : <i>Attached</i>
Distance and direction to nearest pipeline(s), including fresh water pipelines <i>if less than one mile</i> : <i>Attached</i>
Distance and direction to nearest paved or maintained road or railroad <i>if less than one mile</i> : <i>Attached</i>
Depth to ground water found above the Salado (salt section), regardless of yield: <i>Attached</i>
Name of aquifer(s): <i>Attached</i>
WELL CONSTRUCTION: <i>Please provide the following information and attach a diagram depicting the brine well. Check box if attached:</i> Copy of a current well diagram: <i>Attached</i> <input checked="" type="checkbox"/> Copy of formation record with tops: <i>Attached</i> <input checked="" type="checkbox"/> Copy of geophysical well logs if available: <i>Attached</i> <input type="checkbox"/> <i>If not, well logs within one mile</i> <input type="checkbox"/>
Depth of the top of the salt below ground surface (feet): <i>Attached</i>
Depth to the bottom of the salt below ground surface (feet): <i>Attached</i>
Depth(s) to and thickness(es) of any anhydrite section(s) (located above the salt): <i>Attached</i>
Depth of casing(s) shoe below ground surface (feet): <u><i>1895'</i></u> Is the casing shoe set in the anhydrite or other layer above the salt? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the casing shoe set into the salt? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, how far into the salt? <u><i>Top</i></u>
Depth of tubing(s): <u><i>2461</i></u>
Do you suspect that your cavern has partially caved in? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input checked="" type="checkbox"/>
OPERATIONS: <i>Please provide the following information.</i>
Start date of brine well operation: <u><i>1980</i></u>
Total volume of fresh water injected into the brine well to date (bbis) and how determined: <u><i>total bls brine x 7 36977360 . fresh water calculated</i></u>

Total volume of brine water produced (bbls) to date and how determined: <i>Average 189660 per yr for 28 yrs = 5,292,480 bbls brine</i>
Have you ever lost casing or tubing? If yes, please provide details. Document attached <input checked="" type="checkbox"/> <i>Recently trying to run sonar log.</i>
Do you maintain a surface pressure on your well during idle times? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Have you noticed large amounts of air built up during cavity pressurization? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Have you ever noticed fluids or air/gas bubbling up around the casing during testing or normal operations? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
MONITORING: Please provide the following information.
Are you currently monitoring ground water contamination from your brine well or system? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>The supply well is tested.</i>
Have you ever run a sonar log? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>Tried 2.</i> If yes, please provide last date: <i>8/2008</i> <i>No log</i>
Provide cavern configuration (dimensions and volume) and method(s) used to estimate: If sonar report please attach <input type="checkbox"/> <i>If other, please specify and provide a sketch of cavern:</i> <input type="checkbox"/>
Do you have a subsidence monitoring program in place? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Do you have any geophysical monitoring devices, such as a seismic device positioned near your brine well? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Have you submitted all of your monthly, quarterly, or annual reports to the OCD? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Have you failed a brine well mechanical integrity test (MIT)? If yes, please attach details and results. Attached <input type="checkbox"/> <i>No</i>
Have you ever had a casing leak? Yes <input type="checkbox"/> No <input type="checkbox"/> Have you ever had a cavern leak? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input checked="" type="checkbox"/> Have you ever exceeded the cavern fracture pressure? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Don't know <input type="checkbox"/> Do you know how to calculate your maximum pressure? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Don't know <input type="checkbox"/> <i>step later test</i>
Have you routinely looked for cracks or fissures in the ground surface around your brine well? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>Gandy inspects location daily for all problems</i>
Do you have any minor or major cracks, fissures, tank settlement, line breakage from settlement or any minor subsidence. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
During operations have you experienced any ground vibration, ground movement, or well movement after opening or shutting valves, pump start-up, shut-down, etc.? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Have you ever experienced unexpected pressure gain or loss in the cavern? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
If Yes, was there a difference in your normal flow rate? Yes <input type="checkbox"/> No <input type="checkbox"/>
Anytime during the past 5 years, have you experienced a noticeable difference between fresh water volume pumped into the well verses brine water produced? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Are you concerned about pulling the tubing due to the fact it may be difficult to re-enter the hole? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Are you concerned about running a sonar tool in fear of losing tool because of debris in hole? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Fear of losing hole
Have you ever conducted a fly over of your well site? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> if yes, please provide photo. <input type="checkbox"/> Photo(s) attached
Calculation: Please divide your estimated total volume of produced brine by 180,000 and multiply by 50. Example: If you have produced a total of 18,000,000 bbls of brine in the life time of the well then your calculation would be $18,000,000/180,000 = 100 \times 50 = 5000$.
1. Provide the calculated number above here: <u>1467.3</u>
2. Now provide the depth (ft) from the surface to your casing shoe: <u>1895</u>
Is the calculated number found in #1 above greater than #2? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Comments or recommendations for OCD:

"I certify under 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."

Gandy Corp.
Company Name-print name above

Eddie W Seay
Company Representative- print name

Eddie W Seay
Company Representative- Signature

Title: Agent

Date: 8/30/2008

API NUMBER	30-025-26883
OPERATOR	GANDY CORP
PROPERTY NAME	EIDSON STATE # 1
LOCATION	M-31-T16S-R35E 567 FSL 162 FWL
DEPTH TOP SALT BELOW G.L.	1895 FEET
DEPTH BASE SALT BELOW G.L.	2900 FEET
THICKNESS ANHYDRITE ABOVE SALT	95 FEET
LOGS WITHIN 1 MILE	All AVAILABLE ON OCD ONLINE 30-025-27837
County Road 238	0.06 miles SE
Water Well	
Water Well (Chevron CVU)	0.14 miles SE
Supply Well	0.03 miles W
Structures & Buildings	
None	
Tank Batteries	
Chesapeake Bat	0.27 miles SW
BTA Bat	0.26 miles NE
Pipe Lines	
Gas Pipeline (E-W)	0.16 miles NW
Duke Pipeline (E-W)	0.21 miles S
Navajo Pipeline (E-W)	0.35 miles S
DEPTH TO GROUND WATER	
OGALLALA	60-220 FEET
SANTA ROSA	1400-1895 FEET
Playa	0.25 miles SE

BRINE WELL

30-025-26883	EIDSON STATE	1	GANDY CORP		BSW	A	Lea	M	31	16 S	35 E	567 S	162 W
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Wells within 1 mile of Gandy Corp, Eidson State # 1 brine well

API #	PROPERTY NAME	#	OPERATOR	TD	TYPE	STA	CO	L	U/L	SEC	TWN	RNG	N/S	E/W	Distance	Dir
3002524594	NORTH VACUUM ABO NORTH UNIT	1	SAGE ENERGY CO	8940	I	A	Lea S N			36	16 S	34 E	460 S	1980 W	3463	W
3002524648	NORTH VACUUM ABO NORTH UNIT	2	SAGE ENERGY CO	8925	O	A	Lea S L			36	16 S	34 E	1780 S	460 W	5127	W
3002525146	NORTH VACUUM ABO NORTH UNIT	1	SAGE ENERGY CO	8980	O	A	Lea S P			36	16 S	34 E	460 S	660 E	828	W
3002525170	NORTH VACUUM ABO NORTH UNIT	2	SAGE ENERGY CO	8950	O	A	Lea S O			36	16 S	34 E	460 S	1980 E	2144	WSW
3002533184	EUREKA 36 STATE	1	CIMAREX ENERGY CO OF COLORADO	12962	G	A	Lea S F			36	16 S	34 E	1980 N	1650 W	4674	WNW
3002534356	NORTH VACUUM ABO NORTH UNIT	163	SAGE ENERGY CO	8808	O	A	Lea S M			36	16 S	34 E	660 S	660 W	4782	W
3002536389	EUREKA 36 STATE	2	CIMAREX ENERGY CO OF COLORADO	12820	G	A	Lea S N			36	16 S	34 E	810 S	1860 W	3590	W
3002537018	NORTH VACUUM ABO NORTH UNIT	123	SAGE ENERGY CO	8883	O	A	Lea S O			36	16 S	34 E	608 S	1777 E	1939	WSW
3002537993	ENCORE 36 STATE	1	ENCORE OPERATING LP	13030	G	A	Lea S J			36	16 S	34 E	1330 S	1750 E	2058	W
3002531621	VACUUM 9205 JV-P	1	BTA OIL PRODUCERS	12900	O	A	Lea S L			31	16 S	35 E	1980 S	660 W	1498	N
3002532958	VACUUM 31	1	PETROHAWK OPERATING COMPANY	12750	G	A	Lea S O			31	16 S	35 E	660 S	1980 E	3139	E
3002524176	NORTH VACUUM ABO NORTH UNIT	1	SAGE ENERGY CO	8850	I	A	Lea S J			1	17 S	34 E	1780 S	2000 E	4605	SE
3002524341	NORTH VACUUM ABO NORTH UNIT	1	SAGE ENERGY CO	8830	I	A	Lea S P			1	17 S	34 E	660 S	860 E	5286	SE
3002524487	NORTH VACUUM ABO NORTH UNIT	1	SAGE ENERGY CO	8830	I	A	Lea S F			1	17 S	34 E	2180 N	1980 W	4419	WSW
3002524631	NORTH VACUUM ABO NORTH UNIT	1	SAGE ENERGY CO	8910	I	A	Lea S B			1	17 S	34 E	800 N	2120 E	2660	SW
3002524645	NORTH VACUUM ABO NORTH UNIT	2	SAGE ENERGY CO	8940	I	A	Lea S H			1	17 S	34 E	1980 N	860 E	2744	S
3002525059	NORTH VACUUM ABO NORTH UNIT	1	SAGE ENERGY CO	8845	I	A	Lea S D			1	17 S	34 E	860 N	660 W	4990	WSW
3002525206	NORTH VACUUM ABO NORTH UNIT	2	SAGE ENERGY CO	8830	O	A	Lea S E			1	17 S	34 E	1980 N	860 W	5242	WSW
3002527953	STATE VI	1	CHESAPEAKE OPERATING, INC.	12250	G	TA	Lea S P			1	17 S	34 E	990 S	990 E	4991	S
3002532243	NORTH VACUUM ABO NORTH UNIT	2	SAGE ENERGY CO	8800	O	A	Lea S K			1	17 S	34 E	1980 S	1980 W	5190	SW
3002532244	NORTH VACUUM ABO NORTH UNIT	2	SAGE ENERGY CO	8844	O	A	Lea S I			1	17 S	34 E	1980 S	660 E	3953	SSW
3002532721	NORTH VACUUM ABO NORTH UNIT	73	SAGE ENERGY CO	8860	O	A	Lea S G			1	17 S	34 E	1980 N	1980 E	3327	SW
3002535678	STATE VII	7	CHESAPEAKE OPERATING, INC.	12750	G	A	Lea P A			1	17 S	34 E	660 N	660 E	1476	SSW
3002536333	BUCKEYE 1 STATE	1	FASKEN OIL & RANCH LTD	12600	O	A	Lea S D			1	17 S	34 E	820 N	1310 W	4358	WSW
3002502814	STATE A	1	WARREN & BRADSHAW E	87	O	P&A	Lea S L			6	17 S	35 E	1650 S	330 W	4200	S
3002525282	STATE K 6119 COM	1	SOUTHWEST ROYALTIES INC	8925	O	A	Lea S L			6	17 S	35 E	1980 S	660 W	3898	S
3002536166	SAGEBRUSH	1	SAGE ENERGY CO	8884	O	A	Lea S E			6	17 S	35 E	2286 N	660 W	2896	S
3002538000	ENCORE 6 STATE COM	1	ENCORE OPERATING LP	12850	G	A	Lea S F			6	17 S	35 E	1650 N	1650 W	2670	SSE
3002538368	ENCORE 6 STATE COM	2	ENCORE OPERATING LP	12820	G	A	Lea S A			6	17 S	35 E	1190 N	790 E	4671	ESE

5280 5280

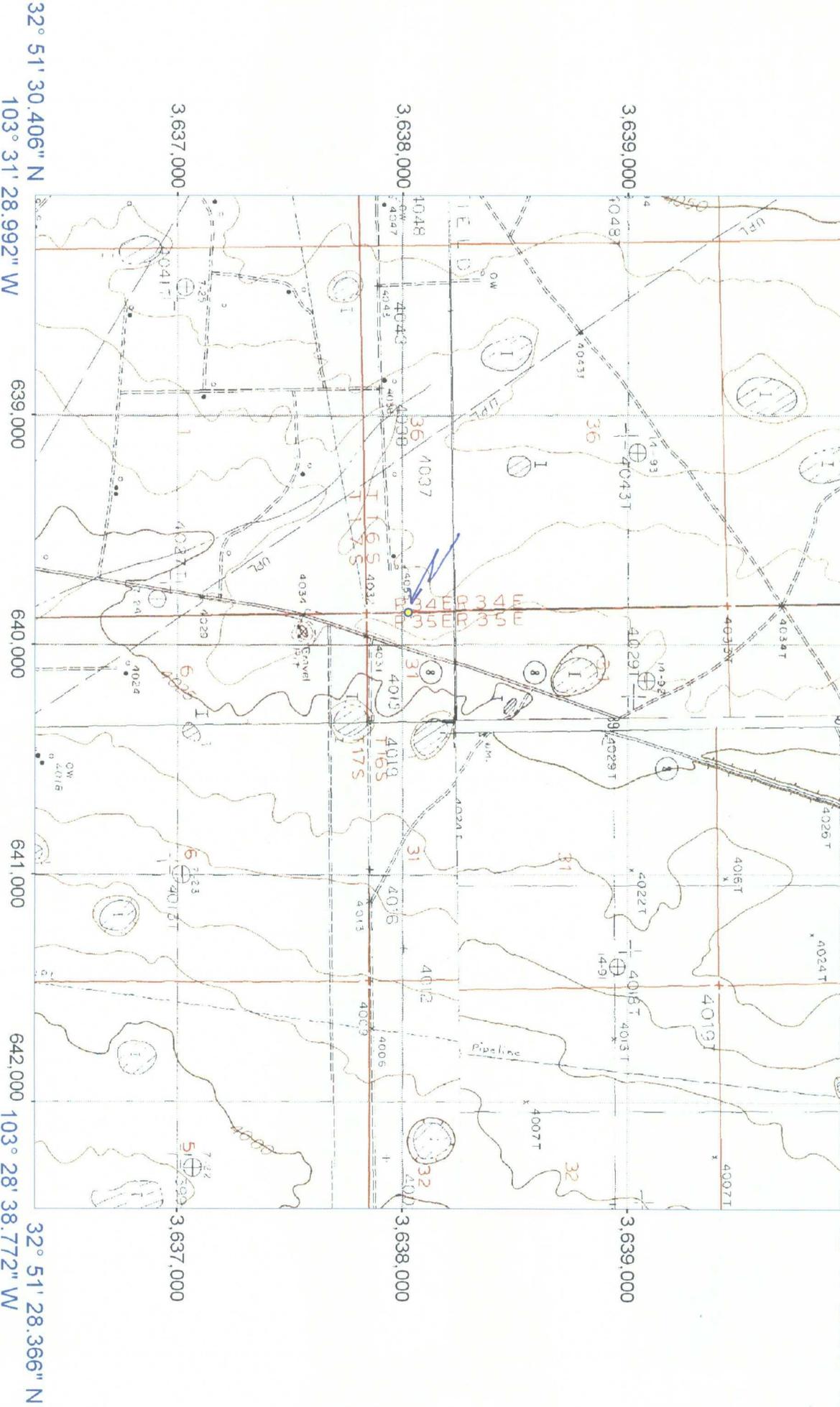


32.8731623 -103.5050261

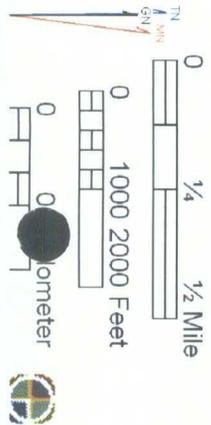
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Image © 2008 DigitalGlobe

103° 31' 27.044" W 639,000 640,000 641,000 642,000 103° 28' 36.761" W 32° 53' 27.960" N 32° 51' 30.406" N 103° 31' 28.992" W 32° 53' 25.918" N



1927 North American Datum: UTM grid zone 13
 Generated by BigTopo7 (www.igage.com)
 Map compiled from USGS Quads: Buckeye NE; NM Lovi; NW; NM Buckeye; NM BigTopo; it5; Scale: 1" = 0.379MI, 6:10MI, 2:000FT, 1 MI = 2,640', 1 cm = 240MI



RECEIVED

2008 SEP 9 PM 2 55

August 30, 2008

NMOCD Environmental
ATTN: Wayne Price
1220 S. St. Francis Dr.
Santa Fe, NM 87505

RE: Gandy Corp.
BW-04
BW-022

Mr. Price:

Find within the information requested on the two brine wells that Gandy Corp. operates. Information was obtained from operator personnel, well files and physical observation.

Should you need anything further, please call.

Sincerely,



Eddie W. Seay, Agent
Eddie Seay Consulting
601 W. Illinois
Hobbs, NM 88242
(575)392-2236
seay04@leaco.net

cc: Gandy Corp.

**New Mexico Office of the State Engineer
POD Reports and Downloads**

Township: 16S Range: 35E Sections: 31

NAD27 X: Y: Zone: Search Radius:

County: LE Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

WATER COLUMN REPORT 10/08/2008

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y	Depth Well	Depth Water	Water (in feet) Column
<u>L 10270</u>	16S	35E	31	3	1	4				180	70	110
<u>L 10482 2</u>	16S	35E	31	4	3					165		
<u>L 10482</u>	16S	35E	31	4	3	3				190	75	115

Record Count: 3

New Mexico Office of the State Engineer
POD Reports and Downloads

Township: 16S Range: 35E Sections: 31

NAD27 X: Y: Zone: Search Radius:

County: LE Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic

All

POD / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

iWATERS Menu

Help

AVERAGE DEPTH OF WATER REPORT 10/08/2008

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
L	16S	35E	31				2	70	75	73

Record Count: 2

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, October 03, 2008 9:06 AM
To: 'Larry Gandy'
Cc: Gum, Tim, EMNRD; Price, Wayne, EMNRD; Leking, Geoffrey R, EMNRD
Subject: BW-4 (C-103) & BW-22 (C-103) w/ recent Sonar Testing & MITs Info.
Attachments: BW-4.tif; BW-22.tif

Larry:

Please find attached signed OCD C-103 Forms for the above discharge permitted facilities. The OCD is awaiting receipt of the final C-103's for each facility with Gandy's final actions. The OCD would appreciate receipt of the final C-103 Forms within 30 days to determine the status of the work.

Recent Sonar Activities and MITs

BW-4:

MIT: A packer was set at 1738 ft. (casing shoe set at 1895 ft.) A 30 min. EPA casing test was run on 8/27/08 and passed. The packer was set ~157 feet above the casing shoe. In the future, the packer should be set near (within at least 20 ft.) the casing shoe depth.

Sonar: The tubing got stuck in the hole while trying to run the sonar test. Consequently, Gandy cut the tubing and discarded pipe into the cavern w/ OCD approval in the field. A sonar could not be performed.

BW-22:

MIT: The packer was set at 2139 ft. (casing shoe set at 2905 ft.). A 30 min. EPA casing test was run on 8/28/2008 and passed. The packer was set ~766 feet above the casing shoe. In the future, the packer should be set near (within at least 20 ft.) the casing shoe depth.

Sonar: The sonar was run; however, the centralizer on the sonde got hung up about 28 ft. below the bottom of the casing shoe. The OCD approved in the field the sonar shooting upward at the roof of the cavern in order to complete a limited sonar test of the roof of the cavern. The OCD is awaiting the final report.

The above attachments will be scanned into the OCD Online soon. Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

10/3/2008

Submit 3 Copies To Appropriate District Office
 District I
 1625 N. French Dr., Hobbs, NM 88240
 District II
 1301 W. Grand Ave., Artesia, NM 88210
 District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 June 19, 2008

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

WELL API NO. 30-025-26883
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Eidson Brine Station BW-004
8. Well Number 1
9. OGRID Number
10. Pool name or Wildcat
11. Elevation (Show whether DR, RKB, RT, GR, etc.)

SUNDRY NOTICES AND REPORTS ON WELLS
 (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well Gas Well Other Brine Well

2. Name of Operator
Gandy Corporation

3. Address of Operator
P.O. Box 2140, Lovington, NM 88260

4. Well Location
 Unit Letter M : 567.4 feet from the South line and 161.7 feet from the West line
 Section 31 Township 16 Range 35 NMPM County Lea

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			

OTHER: OTHER:

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

- 08/20/08 Pull tubing.
- 08/21/08 Run wire line & sonar tools for capacity/cavity configuration and subsidence survey.
Run casing scraper.
Run in hole and set packer.
Pressure test casing for MIT.
- 08/22/08 Run 2 7/8 tubing to approximately 2450' - put back in operation.

RECEIVED
 Aug 20 2008
HOBBS OGD

Spud Date: Rig Release Date:

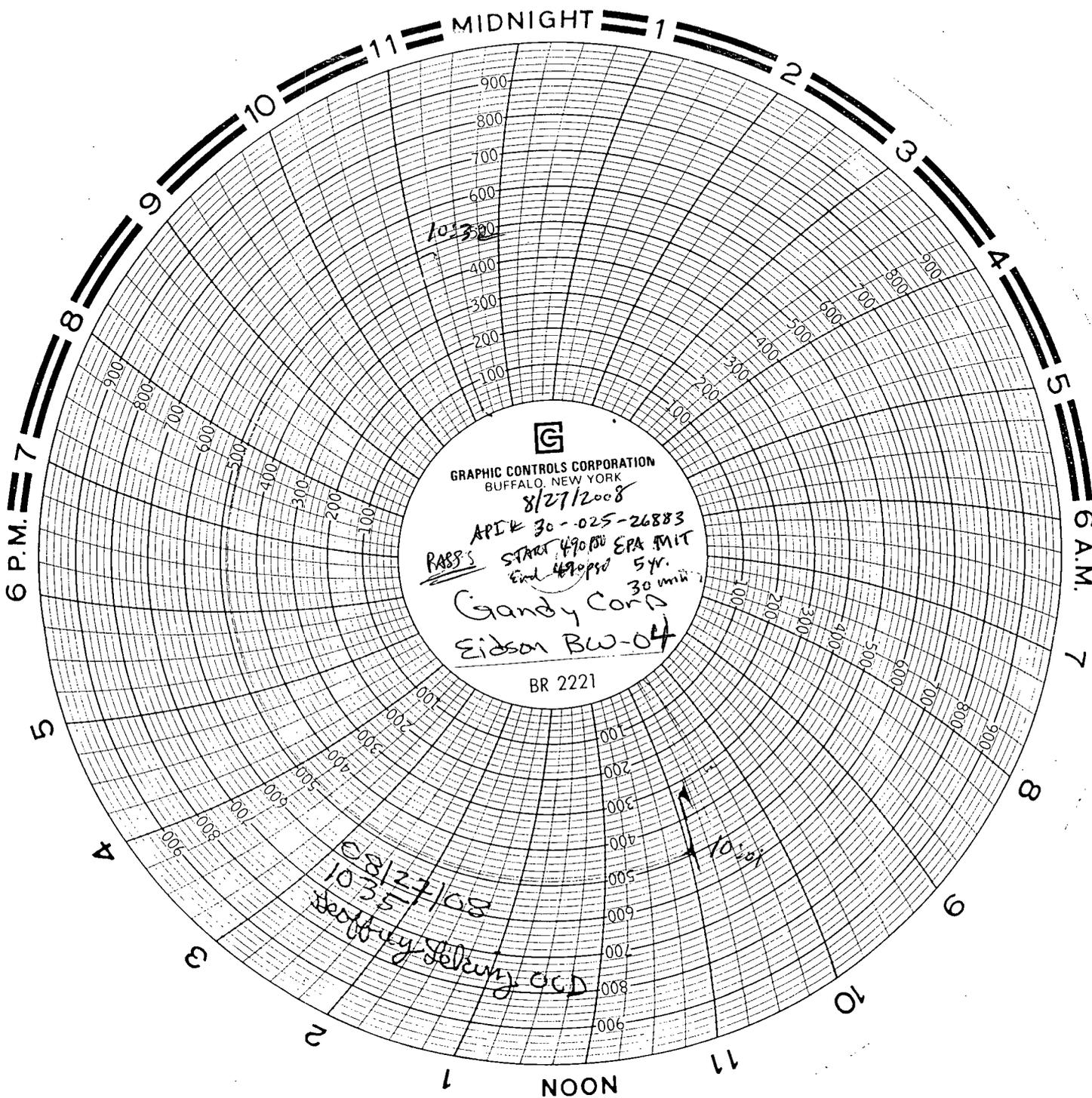
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Larry Gandy TITLE Secy Treas. DATE 8-20-08

Type or print name Larry Gandy E-mail address: _____ PHONE: 575-398-4960

APPROVED BY: [Signature] TITLE **Geologist** DATE _____
 Conditions of Approval (if any): BBC 9/30/08

packer set @ 1738' (tubing blocking. bot
 of casing)
 casing shoe ~ ~~2800~~ ft
 1895' CSZ



08/27/08
 1035
 Geoffrey Selwyn, OSD

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson

Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



Certified Receipt/Return Requested:

August 01, 2008

Attention Brine Well Operator(s):

One of the permitted brine wells has experienced a total collapse and created an enormous sinkhole. The well was located approximately 17 miles SE of Artesia, NM, on State Trust Land. The operator was Jim's Water Service and the brine well permit is BW-005. OCD has enclosed a press release with photos of the event.

The magnitude of this event warrants an immediate investigation of all brine wells in the state. Therefore, please find enclosed a "BRINE WELL INFORMATION REQUEST" form to be filled out and returned to this office no later than September 05, 2008. Failure to properly fill out and return the form in a timely manner may result in OCD requesting you shut down your operations until further notice. If you have any questions please do not hesitate to call me at 505-476-3490 or E-mail wayne.price@state.nm.us.

Sincerely,


Wayne Price
Environmental Bureau Chief
Oil Conservation Division

Attachments: (2)

Cc: EMNRD Cabinet Secretary-Joanna Prukop
OCD Director-Mark Fesmire
NMSLO- Brian Henington SF, Jim Carr-Carlsbad
BLM-Carlsbad Office- Dave Herrell
Eddy Co. Emergency Management-Joel Arnwine
NM State Police -Roswell Sgt. Les Clements
National Cave and Karst Research Institute- Dr. George Veni
NMOSE-John Stewart
Solution Mining Research Institute-John Voigt



Price, Wayne, EMNRD

From: Porter, Jodi, EMNRD
Sent: Wednesday, July 23, 2008 5:00 PM
Subject: PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide
Attachments: PR-OCD.Brine.Wells07.23.08.pdf

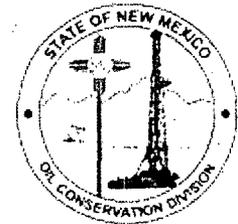


New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



July 23, 2008

NEWS RELEASE

Contact: Jodi McGinnis Porter,
Public Information Officer 505.476.3226

Energy, Minerals and Natural Resources Cabinet Secretary Joanna Prukop Proposes Stricter Conditions on Brine Wells State-wide

Artesia brine well collapse prompts statewide review

SANTA FE, NM – Secretary Joanna Prukop has directed the Oil Conservation Division (OCD) to conduct a complete evaluation of the rules and regulations concerning brine wells, a method of creating saturated salt water used in oil and gas production. The OCD evaluation will include an internal audit and inspection of all existing brine wells in New Mexico. Secretary Prukop is considering strengthening oversight of brine wells to protect against well failures such as the recent collapse in Artesia that created a huge sinkhole and forced the closure of an Eddy County road.

“There are several brine wells in New Mexico and we must ensure that they are all properly monitored to ensure safety and stability,” stated Cabinet Secretary Joanna Prukop. “We have now seen that these wells can collapse and the extensive damage such a collapse can generate.”

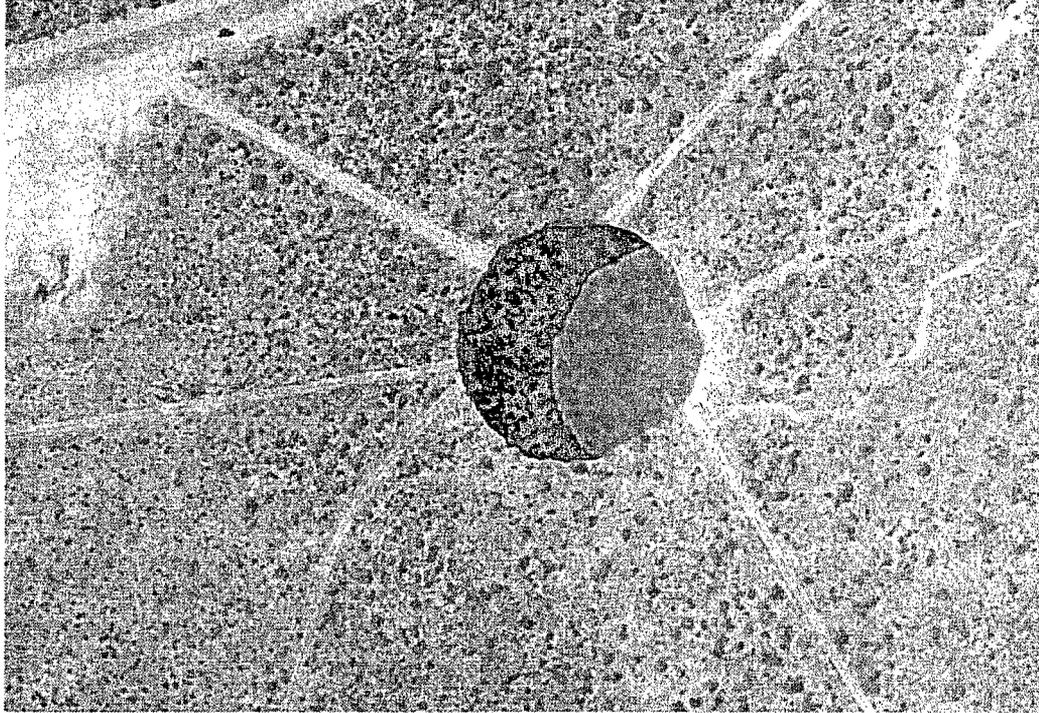
The Oil Conservation Division is continuing to monitor and investigate the collapse of the brine well, located on state trust land 17.3 miles southeast of Artesia, which is still active. The well is owned by Jim's Water Service. County Road 217 remains closed as a safety precaution, and a command center is on site. Division engineers estimate that the well is approximately 300 to 400 feet in diameter, 70 feet to the water level, and the actual depth to the bottom is unknown.

Scientists from the Oil Conservation Division, the Bureau of Land Management, State Land Office, the New Mexico

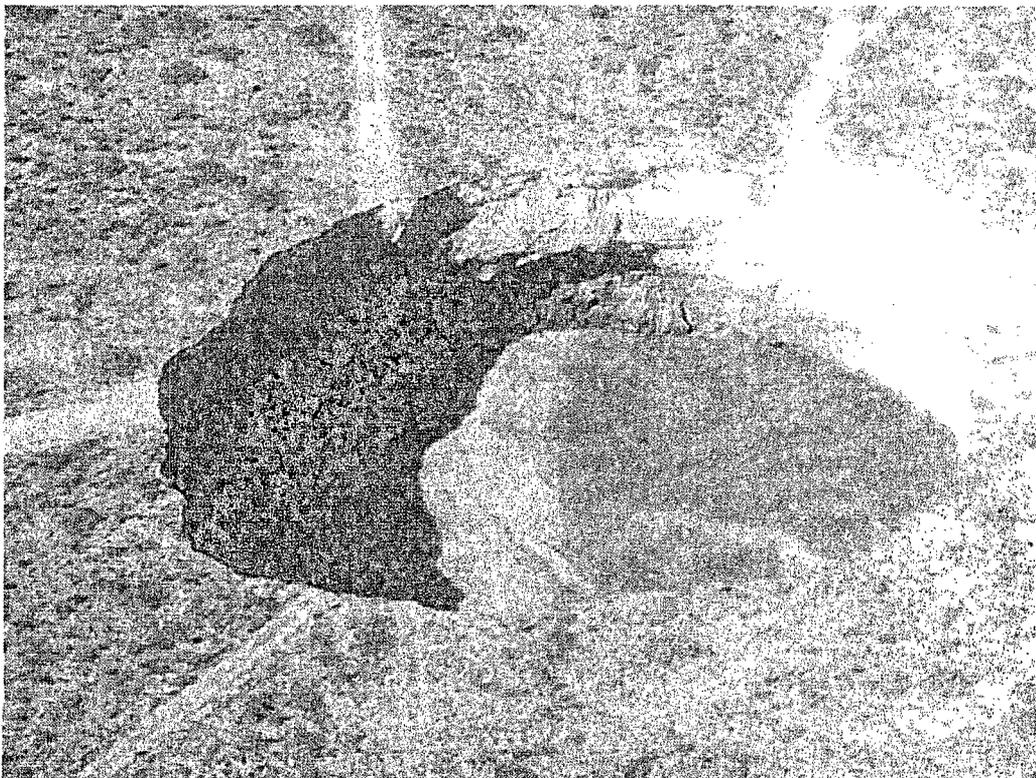
Bureau of Geology and Mineral Resources, and the National Cave & Karst Research Institute are all working together to assess horizontal and vertical movements to project any future subsidence. Work on a protective fence and keep-out signage began yesterday with completion expected on Friday.

In a related issue, the Oil Conservation Division has also been closely monitoring a brine well operated by I & W, Inc located in Carlsbad, NM. Yesterday, following ongoing inquiries from OCD the operator decided voluntarily to stop operation of the well. The division will work with I & W, Inc. to ensure that the well is properly plugged, permanently abandoned, and monitored for the long term.

Images provided on the brine well collapse are courtesy of National Cave and Karst Research Institute:



Morning, July 20, 2008 at 10:44 am.
courtesy of National Cave and Karst Research Institute



New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



OIL CONSERVATION DIVISION BRINE WELL INFORMATION REQUEST

GENERAL INFORMATION:	
Operator Name _____	Well Name(s) _____
API Number _____	Brine Well Permit # _____
Date Permit Expires? _____	
Location: Section _____ Ts _____ Rg _____	
FNL _____	FSL _____ FEL _____ FWL _____
GPS of well(s): Lat: _____ Long: _____	
<p>Have you reviewed and understand all of your permit conditions? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Are you presently deficient of any condition in your permit? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/></p> <p>Do you operate below grade tanks or pits at the site? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Do all tanks, including fresh water tanks, have secondary containment? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Do you think you have the expertise, knowledge and general understanding of what causes a brine well to collapse? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Do you think OCD should provide guidelines on subsidence and collapse issues? Yes <input type="checkbox"/> No <input type="checkbox"/></p>	
SITING INFORMATION: Please provide the following information and depict on 7.5 minute (1" = 2000') USGS Quad Map. Limit search to one mile radius.	
Is the brine well located within a municipality or city limits? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Distance and direction to nearest permanent structure, house, school, etc. if less than one mile:	
Distance and direction to nearest water well if less than one mile:	
Distance to nearest watercourse(s), floodplain, playa lake(s), or man-made canal(s) or pond(s) if less than one mile:	
Distance and direction to nearest known karst features or mines if less than one mile:	



Distance and direction to nearest producing oil or gas well(s) <i>if less than one mile:</i> Provide API Number:
Distance and direction to nearest tank battery(ies) <i>if less than one mile:</i>
Distance and direction to nearest pipeline(s), including fresh water pipelines <i>if less than one mile:</i>
Distance and direction to nearest paved or maintained road or railroad <i>if less than one mile:</i>
Depth to ground water found above the Salado (salt section), regardless of yield:
Name of aquifer(s):
WELL CONSTRUCTION: <i>Please provide the following information and attach a diagram depicting the brine well. Check box if attached:</i> Copy of a current well diagram: Attached <input type="checkbox"/> Copy of formation record with tops: Attached <input type="checkbox"/> Copy of geophysical well logs if available: Attached <input type="checkbox"/> If not, well logs within one mile <input type="checkbox"/>
Depth of the top of the salt below ground surface (feet):
Depth to the bottom of the salt below ground surface (feet):
Depth(s) to and thickness(es) of any anhydrite section(s) (located above the salt):
Depth of casing(s) shoe below ground surface (feet): _____ Is the casing shoe set in the anhydrite or other layer above the salt? Yes <input type="checkbox"/> No <input type="checkbox"/> Is the casing shoe set into the salt? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, how far into the salt? _____
Depth of tubing(s):
Do you suspect that your cavern has partially caved in? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/>
OPERATIONS: <i>Please provide the following information.</i>
Start date of brine well operation:
Total volume of fresh water injected into the brine well to date (bbls) and how determined:

Total volume of brine water produced (bbls) to date and how determined:
Have you ever lost casing or tubing? If yes, please provide details. Document attached <input type="checkbox"/>
Do you maintain a surface pressure on your well during idle times? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you noticed large amounts of air built up during cavity pressurization? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you ever noticed fluids or air/gas bubbling up around the casing during testing or normal operations? Yes <input type="checkbox"/> No <input type="checkbox"/>
MONITORING: Please provide the following information.
Are you currently monitoring ground water contamination from your brine well or system? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you ever run a sonar log? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, please provide last date: _____
Provide cavern configuration (dimensions and volume) and method(s) used to estimate: If sonar report please attach <input type="checkbox"/> If other, please specify and provide a sketch of cavern: <input type="checkbox"/>
Do you have a subsidence monitoring program in place? Yes <input type="checkbox"/> No <input type="checkbox"/>
Do you have any geophysical monitoring devices, such as a seismic device positioned near your brine well? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you submitted all of your monthly, quarterly, or annual reports to the OCD? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you failed a brine well mechanical integrity test (MIT)? If yes, please attach details and results. Attached <input type="checkbox"/>
Have you ever had a casing leak? Yes <input type="checkbox"/> No <input type="checkbox"/> Have you ever had a cavern leak? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Have you ever exceeded the cavern fracture pressure? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Do you know how to calculate your maximum pressure? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/>
Have you routinely looked for cracks or fissures in the ground surface around your brine well? Yes <input type="checkbox"/> No <input type="checkbox"/>
Do you have any minor or major cracks, fissures, tank settlement, line breakage from settlement or any minor subsidence. Yes <input type="checkbox"/> No <input type="checkbox"/>
During operations have you experienced any ground vibration, ground movement, or well movement after opening or shutting valves, pump start-up, shut-down, etc.? Yes <input type="checkbox"/> No <input type="checkbox"/>

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, July 25, 2008 4:21 PM
To: Hansen, Edward J., EMNRD; Price, Wayne, EMNRD
Cc: Sanchez, Daniel J., EMNRD
Subject: RE: PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide
Attachments: image001.jpg; image007.jpg

Ed, Wayne, et. al:

Based on my records and knowledge of current activities at NMOCD BWs, my tally is as follows:

There are a total of 15 active UIC Class III Brine Well Permits (excluding BW-5 JWS & BW-6 I&W)

There are currently 13 active UIC Class III Brine Wells in operation (BW-2; BW-4; BW-8; BW-9; BW-12; BW-13; BW-22; BW-25; BW-27 Wells 1 & 2; BW-28; BW-30; and BW-31)

There are currently 6 brine wells that have actually been PA'd including: BW-5 JWS Collapse w/ Site Closure; BW-6 Eugenie #2; BW-21 Loco Hills Well #1 recently PA'd; BW-26 Salado Brine Sales; BW-29 Marbob; & William Brininstool.

There are currently 3 pending PAs of BWs including: BW-6 Eugenie #1 w/ Site Closure; BW-18 Key w/ redrill; and BW-19 Key w/ redrill.

There are currently 5 inactive brine wells (BW-5 Collapse w/ Site Closure; BW-6 needs PA Eugenie #1 w/ Site Closure; BW-18 needs PA w/ redrill; BW-19 needs PA w/ redrill; and BW21 needs redrill)

Let me know how we need to straighten RBDMS out. Please contact me if you have questions. Thanks.

Carl J. Chavez, CHMM
 New Mexico Energy, Minerals & Natural Resources Dept.
 Oil Conservation Division, Environmental Bureau
 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
 Office: (505) 476-3491
 Fax: (505) 476-3462
 E-mail: CarlJ.Chavez@state.nm.us
 Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
 (Pollution Prevention Guidance is under "Publications")

From: Hansen, Edward J., EMNRD
Sent: Wednesday, July 23, 2008 5:56 PM
To: Price, Wayne, EMNRD
Cc: Chavez, Carl J, EMNRD
Subject: FW: PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide

Wayne,
 Jane and I tallied these numbers off of RBDMS (you may want to double check).

From: Hansen, Edward J., EMNRD
Sent: Wednesday, July 23, 2008 5:54 PM
To: Porter, Jodi, EMNRD
Subject: RE: PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide

Jodi,

We counted (from our database: RBDMS):

16 Active Brine Wells

11 Plugged and Abandoned Brine Wells

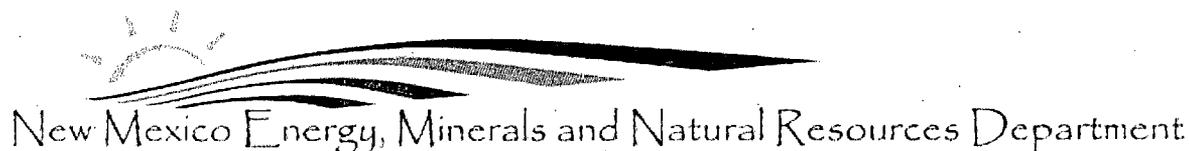
2 Inactive Brine Wells

7/29/2008

From: Porter, Jodi, EMNRD

Sent: Wednesday, July 23, 2008 5:00 PM

Subject: PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide



Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



July 23, 2008

NEWS RELEASE

Contact: Jodi McGinnis Porter,
Public Information Officer 505.476.3226

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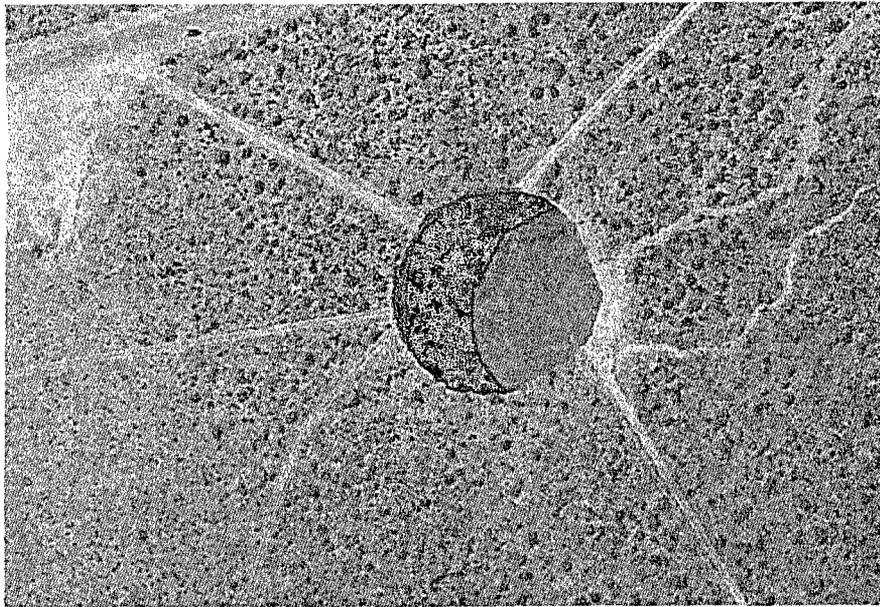
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Images provided on the brine well collapse are courtesy of National Cave and Karst Research Institute:



Morning, July 20, 2008 at 10:44 am.
courtesy of National Cave and Karst Research Institute



Morning, July 22, 2008
courtesy of National Cave and Karst Research Institute

#30#

*The Energy, Minerals and Natural Resources Department provides resource protection
and renewable energy resource development services to the public and other state agencies.*

Oil Conservation Division
1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3440 • Fax (505) 476-3462 • www.emnrd.state.nm.us/OCD



Jodi

Jodi McGinnis Porter
Public Information Officer
Energy, Minerals and Natural Resources Department (EMNRD)
1220 South St. Francis Drive
Santa Fe, NM 87505
Phone: (505) 476-3226

7/29/2008

Fax: (505) 476-3220
Cell: (505) 690-1689
E-mail: jodi.porter@state.nm.us
Website: www.emnrd.state.nm.us