

Corporation Commission

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OIL & GAS CONSERVATION DIVISION



Tim Baker, Director

November 10, 2015

**Contact: Matt Skinner
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Media Advisory – Medford Earthquakes

The Oklahoma Corporation Commission’s Oil and Gas Conservation Division (OGCD) has launched a plan to reduce the risk of induced earthquakes in the area of Medford that has experienced numerous earthquakes since Saturday.

Specifically, the latest addition to the plan calls for disposal wells injecting into the Arbuckle formation to change operations based on the distance from the center of the recent earthquake activity:

Wells within 3 miles: Reduce volume injected 50 percent

Wells within 3 – 6 miles: Reduce volume injected by 25 percent

Wells with 6 – 10 miles: On notice to prepare for possible future changes in operation. The disposal wells covered by the plan include:**

Operator: Sandridge Exploration Production LLC

**Wells: Walley 1-29, reduce volume 50 percent
Nathaniel 1-27, reduce volume 25 percent
Sophie 1-14, reduce volume 25 percent**

Operator: Kirkpatrick Oil Company Inc.

Wells: Thomas 1-27, shut in and reduce depth. Resume operations at 50 percent volume reduction

(MORE)

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(Medford, pg 2.)

Operator: Primexx Operating Corporation

Wells: Primexx 31-1, reduce volume 25 percent

Primexx 1-3, reduce volume 25 percent

Primexx 15-2, reduce volume 50 percent

Operator: Union Valley Petroleum Corporation

Wells: Wesley 1-8, reduce volume 25 percent

Operator: Special Energy Corporation

Wells: Conrady 1, reduce volume 25 percent

***Letter, well list and map attached*

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**(All OCC media advisories and releases are available at
www.occeweb.com)**

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OIL & GAS CONSERVATION DIVISION



Tim Baker, Director

TO:

FROM: Tim Baker, Director, Oil and Gas Conservation Division

RE: Reduction in Volumes for Wells Located in Area of Interest for Induced Seismicity

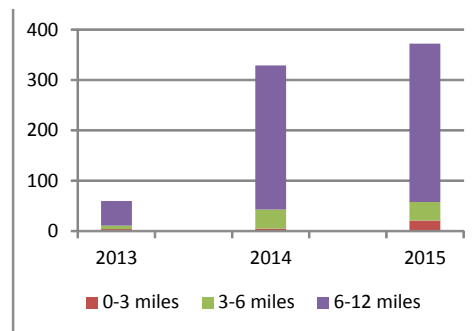
DATE: November 09, 2015

The Commission's Oil and Gas Conservation Division (OGCD) is expanding its efforts to reduce the risk of earthquakes potentially triggered by saltwater disposal wells. The following addresses the reduction of volumes being disposed in the Arbuckle formation within the defined area of interest. Any company that has been identified as operating one or more Arbuckle disposal well(s) located within one of the three zones in the defined area will need to reduce volumes disposed into such well(s) according to the schedule outlined at the end of this letter. The zones are shown on the attached map and are defined from the center point of the recent magnitude 4+ earthquake, as reported by the Oklahoma Geological Survey (OGS), northwest of the town of Medford, as follows:

- Zero to three miles (0-3 miles)
- Three to six miles (3-6 miles)
- Six to ten miles (6-10 miles).

The area highlighted on the attached map has been designated based upon the dramatic increase in earthquakes within the immediate area. The OGCD has reviewed the earthquake activity of magnitude 2.5 and greater within two miles of the zones of interest, as reported by the Oklahoma Geological Survey (OGS). The earthquake activity from January 1, 2013 through November 9, 2015 below. The attached map shows earthquake activity of the last 7 days.

Earthquake Activity Magnitude 2.5 or Greater				
Year	0-3 miles	3-6 miles	6-12 miles	Total
2013	4	7	49	60
2014	5	38	286	329
2015	21	37	314	372



As part of a joint effort to decrease the risk of induced seismicity, you will need to complete reduction of disposal volumes in accordance with the following schedule and as indicated for the wells below. All disposal well volumes shall be calculated on a daily basis. In addition, gauges and flow meters should be placed on such wells on or before Monday, November 23, 2015 so that Commission Field Inspectors can verify pressures and volumes. As has been the practice, pressures and volumes for such wells should continue to be supplied every Monday to the Commission, on a weekly basis, at ogvolumes@occemail.com.

The following schedule applies to all wells within the defined zones in the Area of Interest:

- Zero to three miles (0-3 miles):
 - Wells which have provided proof the well is not beyond the Arbuckle:
 - A shut-in on or before November 16, 2015
 - Wells in the Arbuckle:
 - On or before November 23, 2015, daily volumes should be reduced by twenty-five percent (25%) of the daily average of the total volume reported reported to the Commission on the weekly volume reports through November 9, 2015.
 - On or before December 7, 2015, daily volumes should be reduced by an additional by twenty-five percent (25%), for a total volume reduction of fifty percent (50%) of the daily average of the total volume reported reported to the Commission on the weekly volume reports through November 9, 2015.

- Three to six miles (3-6 miles):
 - On or before November 23, 2015, daily volumes should be reduced by thirteen percent (13%) of the daily average of the total volume reported reported to the Commission on the weekly volume reports through November 9, 2015.
 - On or before December 7, 2015, daily volumes should be reduced by an additional twelve percent (12%), for a total volume reduction of twenty-five percent (25%) of the daily average of the total volume reported reported to the Commission on the weekly volume reports through November 9, 2015.

- Six to ten miles (6-10 miles):
 - Maintain current levels at this time. This letter shall serve as notification that future seismic activity might result in an expanded area for reductions to include these wells.

If you have any questions contact the OCGD:

The wells in this area operated by your company, and the volume reduction schedule are listed below:

Company	Status	Well Name	Data				Requested max volume	% Reduction	Buffer Zone
			Max of Volume	Average of Volume	Sum of Volume	Max of Rolling 30			
EAGLE ENERGY EXPLORATION PRODUCTION LLC	Not in Granite	DOWNING 1 SWD	7774	3783	930600	5298	3783	0%	6 to 10
SANDRIDGE EXPL & PROD, LLC	Not in Granite	HADLEY SWD 1-15	3130	2322	536388	2546	2322	0%	6 to 10
		WALLEY SWD 1-29	864	456	47879	690	228	50%	0 to 3
	Plugged Back	NATHANIEL SWD 2806 1-27	9980	4304	994128	6156	3228	25%	3 to 6
		AUSTIN SWD 1-16	7344	1327	322423	4559	1327	0%	6 to 10
		SOPHIE SWD 1-14	2617	1766	185447	1945	1325	25%	3 to 6
CAVIN SWD 1-31	2048	28	6529	342	28	0%	6 to 10		
KIRKPATRICK OIL COMPANY INC	Plugback procedure approved	THOMAS SWD 1-27	2655	937	223049	1295	469	50%	0 to 3 *
PRIMEXX OPERATING CORPORATION	Not in Granite	PRIMEXX SWD 31-1	5547	891	205874	2201	668	25%	3 to 6
		PRIMEXX SWD 1-3	4233	2526	621444	3235	1895	25%	3 to 6
		PRIMEXX SWD 15-2	3943	2351	315042	2915	1176	50%	0 to 3
UNION VALLEY PETROLEUM CORP	Injecting <1000 per day	WESLEY SWD 1-8	1214	749	172928	858	561	25%	3 to 6
SPECIAL ENERGY CORPORATION	Plugged Back	CONRADY 19-28N-6W 1 SWD	3041	1731	161012	2120	1298	25%	3 to 6
		POSTLEWAIT 1-7 SWD	296	39	3581	296	39	0%	6 to 10
NEILSON INC	Not an Arbuckle Well	KERRI ANN SWD 1-5	2640	475	108880	744	475	0%	3 to 6
Totals			57326	23685	4835204	35199	18821	21%	

* The Kirkpatrick Oil Thomas 1-27 will have to shut in until plugged back.

