

Holweger, Todd L.

From: Smith, Nathaniel <nsmith@hess.com>
Sent: Tuesday, November 01, 2016 1:45 PM
To: Holweger, Todd L.
Cc: Smith, Daniel
Subject: RE: land owner notification of vib points used for HA Swenson

Categories: IMPORTANT follow-up

Todd,

I do not have all the files of what was sent to land owners, all I have are the permit agreements from 2014.

Don't know if the Century Code was distributed, however it looks like all the points in the century code are covered in the permit agreements.

Nat

From: Holweger, Todd L. [<mailto:tholweger@nd.gov>]
Sent: Tuesday, November 01, 2016 10:59 AM
To: Smith, Nathaniel
Subject: RE: land owner notification of vib points used for HA Swenson

Nat,
Do you know if these chapters from the ND Century Code were given to landowners at the time of notification?
Thank you,
Todd
NDIC

From: Smith, Nathaniel [<mailto:nsmith@hess.com>]
Sent: Tuesday, November 01, 2016 10:29 AM
To: Holweger, Todd L.
Cc: Smith, Daniel
Subject: land owner notification of vib points used for HA Swenson

Todd,

In preparation of the HA Swenson microseismic project, Hess did notify landowners within 0.5 miles of vib points. This was done by the Hess land group.

Let me know if you need details or further information.

Thanks,
Nat Smith

Geophysicist
713-496-5435
Hess, Houston



GEOPHYSICAL EXPLORATION COMPLETION REPORT - FORM GE 6A

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 51456 (03-2011)

Permit No. 97-0252	
Shot Hole Operations	*Non-Explosive Operations Yes

SECTION 1

Geophysical Contractor Halliburton Energy Services	
Project Name and Number Hess HA-Swenson	County(s)
Township(s) S18 T152	Range(s) 95W
Drilling and Plugging Contractors	
Date Commenced May 29, 2014	Date Completed June 4, 2014

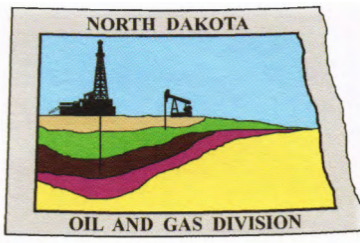
SECTION 2

First S.P. #	Last S.P. #											
Loaded Holes (Undetonated Shot Points)												
S.P.#s												
Charge Size												
Depth												
Reasons Holes Were Not Shot												

SECTION 3

Flowing Holes and/or Blowouts S.P.#s
Procedure for Plugging Flowing Holes and/or Blowouts
Include a 7.5 minute USGS topographic quadrangle map or a computer generated post-plot facsimile of the approximate scale displaying each individual shot hole, SP #, line #, and legal location.

*Non-Explosive Operations - Complete Section 1 and Affidavit (Form GE 6B).



Oil and Gas Division

Lynn D. Helms - Director Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.dmr.nd.gov/oilgas/

MAY 16, 2014

MR. PRICE STARK
PROJECT MANAGER
HALLIBURTON SERVICE
15579 E HINSDALE CIR.
SUITE 102
CENTENNIAL, CO 80112

RE: HESS HA-SWENSON
GEOPHYSICAL EXPLORATION PERMIT # 97-0252
MCKENZIE COUNTY
NON EXPLOSIVE METHOD

Dear MR. STARK:

Please be advised that we are in receipt of your Geophysical Exploration permit application and it is conditionally approved; effective for one year from MAY 16, 2014. **PURSUANT TO NDAC 43-02-12-05 (DISTANCE RESTRICTION) non-explosive exploration method may not be conducted not less than 300 feet from a water well, building, underground cistern, pipelines, and flowing spring.** Review the following conditions for your permit:

1. A pre-program meeting with state seismic inspector Tom Torstenson is required. You must contact him at 701-290-1546 (cell) or 701-227-7436 at least 24 hours prior to any exploration operations. Also, a copy of the entire permit is required for all contractors at the pre-program meeting.
2. All variances for distance restrictions are to be furnished, and a pre-plot map displaying any source points that do not comply with the distance restriction rule must be supplied to the inspector.
3. The following information must be submitted within 30 days of the completion of the project by the Geophysical Company:
 - a. Completion Report,
 - b. Completion Affidavit,
 - c. Post Plot Map. It must show all water wells, buildings, underground cisterns, pipelines, and flowing springs that fall within the program area and within one half mile of the perimeter of the program.
 - d. An Image file (.img) on an SD card or email: ttorstenson@nd.gov with all source and receiver points,

- e. Letter stating that the Geophysical Company has given all surface owner's a copy of the Section and Chapter of the NDCC as stated in paragraph 5.
4. The following information must be submitted within 30 days of the completion of the project by the SUBCONTRACTOR(s) (when applicable):
 - a. Plugging Report
 - b. Plugging Affidavit
5. It is required that within seven days of initial contact between the permitting agent and the operator of the land, the permitting agent shall provide the operator of the land and each landowner owning land within one-half mile of the land on which geophysical exploration activities are to be conducted a written copy of NDCC Section 38-08.1-04.1 (Exploration Permit) and NDCC Chapter 38-11.1 (Oil and Gas Production Damage Compensation). The permitting agent shall file an affidavit with this office confirming compliance with such notification. For your convenience, a copy of both Sections are enclosed.
6. The permit agent shall notify the operator of the land at least seven days before commencement of any geophysical exploration activity, unless waived by mutual agreement of both parties. The notice must include the approximate time schedule and the location of the planned activity.
7. Information regarding the location of water wells, springs, etc.; refer to the following ND State Water Commission Mapservice website, at: <http://mapservice.swc.state.nd.us/>
8. The entire permit can be viewed, as well as the status of various seismic projects in the state, at: <https://www.dmr.nd.gov/oilgas/seismic/seismicstats.asp>

Should you have any questions regarding this matter, feel free to contact me at 701-328-8020, or Tom Torstenson at the number listed in paragraph 1.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Holweger', with a long horizontal flourish extending to the right.

Todd L. Holweger
DMR Permit Manager



GEOPHYSICAL EXPLORATION PERMIT - FORM GE 1

INDUSTRIAL COMMISSION OF NORTH DAKOTA
 OIL AND GAS DIVISION
 600 EAST BOULEVARD DEPT 405
 BISMARCK, ND 58505-0840
 SFN 51459 (03-2011)



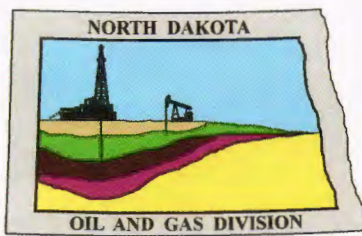
1) a. Company Halliburton		Address 15579 E Hinsdale Cir, Suite 102 Centennial CO 80112			
Contact Price Stark		Telephone (303) 579-2088		Fax (303) 766-4306	
Surety Company Westchester Fire Insurance Company		Bond Amount \$25,000		Bond Number K08358977	
2) a. Subcontractor(s)		Address		Telephone	
b. Subcontractor(s)		Address		Telephone	
3) Party Manager Ben Bagherian		Address (local)		Telephone (local) (303) 249-0547	
4) Project Name or Line Numbers Hess HA-Swenson					
5) Exploration Method (Shot Hole, Non-Explosive, 2D, 3D, Other) Non-explosive					
6) Distance Restrictions (Must check all that apply)					
<input checked="" type="checkbox"/> 300 feet - NonExplosive - Distance setbacks apply to water wells, buildings, underground cisterns, pipelines, and flowing springs.					
<input type="checkbox"/> 660 feet - Shot Hole - Distance setbacks apply to water wells, buildings, underground cisterns, pipelines, and flowing springs.					
7) Size of Hole	Amt of Charge	Depth	Source points per sq. mi.	No. of sq. mi.	
3-D			6		
Size of Hole	Amt of Charge	Depth	Source points per ln. mi.	No. of ln. mi.	
2-D					
8) Approximate Start Date May 20, 2014			Approximate Completion Date June 1, 2014		

THE COMMISSION MUST BE NOTIFIED AT LEAST 24 HOURS IN ADVANCE OF COMMENCEMENT OF GEOPHYSICAL OPERATIONS

9) Location of Proposed Project - County McKenzie						
Section(s), Township(s) & Range(s)	Section	24	T.	152N	R.	96W
	Section	20	T.	152N	R.	95W
	Section	06	T.	152N	R.	95W
	Section	17	T.	152N	R.	96W
	Section	30	T.	153N	R.	94W
	Section	08	T.	151N	R.	95W

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records.			Date
Signature 	Printed Name Price Stark	Title Project Manager	
Email Address(es) price.stark@halliburton.com			

(This space for State office use)		Permit Conditions
Permit No. 970252	Approval Date 5/16/14	
Approved by 		
Title Mineral Resources Permit Manager		* Permit in hand required at pre-program meeting with field inspector and be aware of all NDIC Rules and Regulations (i.e. distance restrictions).
		* See attached letter.



Oil and Gas Division

Lynn D. Helms - Director

Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.dmr.nd.gov/oilgas/

MAY 16, 2014

The Honorable Frances Olson
McKenzie County Auditor
P.O. Box 543
Watford City, ND 58854-0543

RE: Geophysical Exploration
Permit #97-0252

Dear Frances Olson:

Pursuant to Section 38-08.1-04.2 of the North Dakota Century Code, please be advised that HALLIBURTON ENERGY SERVICES was issued the above captioned permit on MAY 16, 2014 will remain in effect for a period of one year. The entire permit can be viewed on our website at: <https://www.dmr.nd.gov/oilgas/seismic/seismicstats.asp>

Should you have any questions, please contact our office.

Sincerely,

Todd L. Holweger
DMR Permit Manager

HESSE
MCKEEN 30-23
ACTIVE GASC WELL
1740'FSL 1740'FWL
SEC 30-T153N-R94W
~26,000' FROM
SWENSON OBSERVATION #1

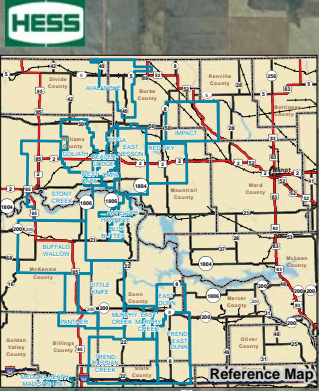
HESSE
A. GRIMSTAD 6-32
ACTIVE OG WELL
2200'FNL 1720'FEL
SEC 06-T152N-R95W
~10,000' FROM
SWENSON H-6

HESSE
SWENSON 20-22ST2
PA WELL
1777'FNL 1914'FWL
SEC 20-T152N-R95W
~8,900' FROM
SWENSON H-6

HESSE
KEENE OFFICE
500'FNL & 500'FWL
SEC 24-T152N-R96W
~8,100' FROM
SWENSON H-6

HESSE
HA-ROLFSRUD-152-96-1720H-1
ACTIVE OG WELL
300'FNL & 2380'FWL
SEC 17-T152N-R96W
~28,000' FROM
SWENSON OBSERVATION #1

HESSE
BBMU F-208XHR2
ACTIVE OG WELL
2090'FNL & 2105'FWL
SEC 8-T151N-R95W
~27,000' FROM
SWENSON OBSERVATION #1



HA-Swenson-152-95-1819H-1
Monitor Planning Map

Legend

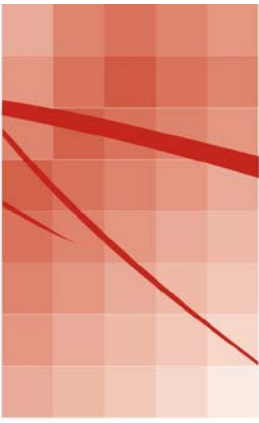
- Buffer of HA-Swenson-152-95-1819H-1
- Hess Wells (Active or Being Drilled)**
 - Other Existing Well
 - Existing Oil Well
 - Existing Water Well (Injection, Supply & Disposal)
 - Existing Gas Condensate Well
 - Existing Monitor Well
 - Existing Well (Confidential)
- Hess Wells (Inactive or Abandoned)**
 - Other Inactive/Abandoned Well
 - Inactive/Abandoned Oil Well
 - Inactive/Abandoned Water Well (Injection, Supply & Disposal)
 - Inactive/Abandoned Gas Condensate Well
 - Inactive/Abandoned Monitor Well
- 3rd Party Wells (Active)**
 - Confidential Well
 - Oil/Gas Well
 - Water Well Related
- 3rd Party Wells (Inactive)**
 - Confidential Well
 - Oil/Gas Well
 - Water Well Related
- County Road
- Highway
- Railroad
- Section (1 x 1 mile)
- Township (6 x 6 miles)

Image

- Red: Band_1
- Green: Band_2
- Blue: Band_3

Due to space constraints, not all features and labels can be shown on this map. For a complete list of features and labels, please refer to the HA-Swenson-152-95-1819H-1 Monitor Planning Map. Aerial Imagery 2013 ND 0211





4/21/2014

Mr. Todd Holweger
NDIC
tholweger@nd.gov



Pinnacle Microsesimic will be performing a vibe orientation for the upcoming treatment of the HA-Swenson No. 152-95-1819H-1 lateral well in McKenzie County, ND (S18, T152, R95W). The expected timeframe for this operation is from May 22nd through May 31st 2014.

Pinnacle will rig-in a geophone toolstrings in the nearby HA-Swenson Observation vertical wells on May 20, 2014. These geophones require a known signal source to orient themselves to the physical world around them which will be accomplished using surface vibroseis signals.

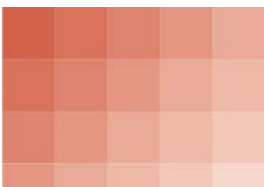
This process will involve the use of a mini-vibroseis unit to perform 5, 12 second vibroseis sweeps at several locations in the surrounding area. An image of the vibroseis unit is provided in Figure 1. For the purposes of this project all vibe locations are on existing well pads or access roads. These vibe locations and their relative positions to the treatment and observation wells are provided below in Figure 2 and Figure 3.

Due to the unknown nature of field operations the vibroseis orientation may need to be repeated during the fracture treatment if mechanical issues force the geophone toolstring to be replaced. This will involve a repeat of the same 12 second vibroseis sweeps at the same locations.

Price Stark
Pinnacle - A Halliburton Service
15579 E. Hinsdale Cir. Ste 102
Centennial, CO 80112-6900
Phone: 303.579.2088
Fax: 303.766.4306
price.stark@pinntech.com
www.pinntech.com



Figure 1 Halliburton Mini-Vibroseis Unit



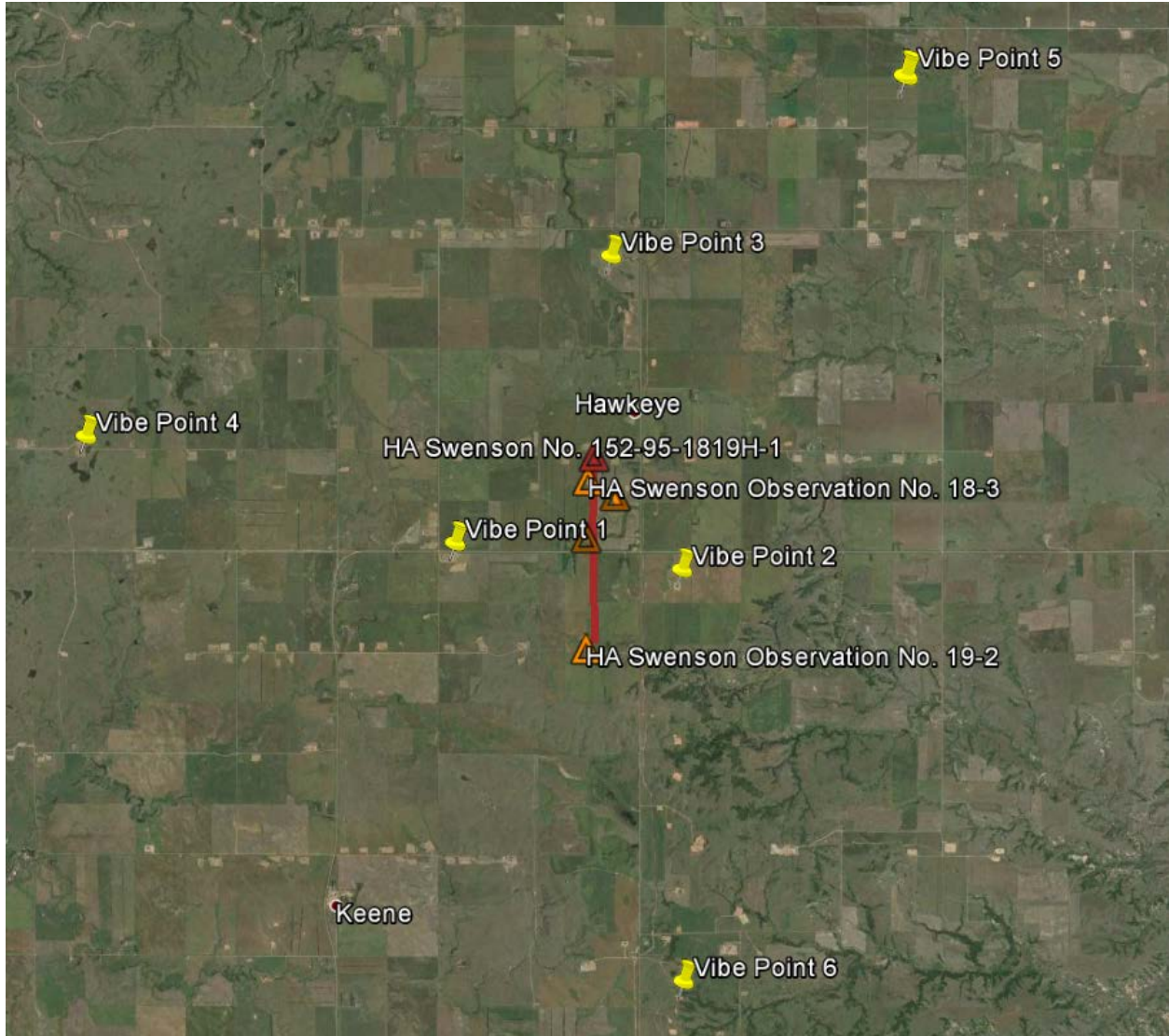


Figure 3 Map View of Project Location and Vibe Positions

Table 1 Vibe Locations

Location	Sec	Twn	Rng	Lat	Long
1	24	152N	96W	47.976	-102.917
2	20	152N	95W	47.970	-102.87
3	06	152N	95W	48.016	-102.882
4	17	152N	95W	47.992	-102.898
5	30	153N	94W	48.042	-102.824
6	08	151N	95W	47.914	-102.868

If there are any questions or concerns please contact me.

Sincerely,



Price Stark
Project Manager
Pinnacle – a Halliburton Service
C: 303-579-2088
price.stark@pinntech.com



Figure 4 Map View of Vibe Position 1 (Position Will be 300 ft from any buildings)

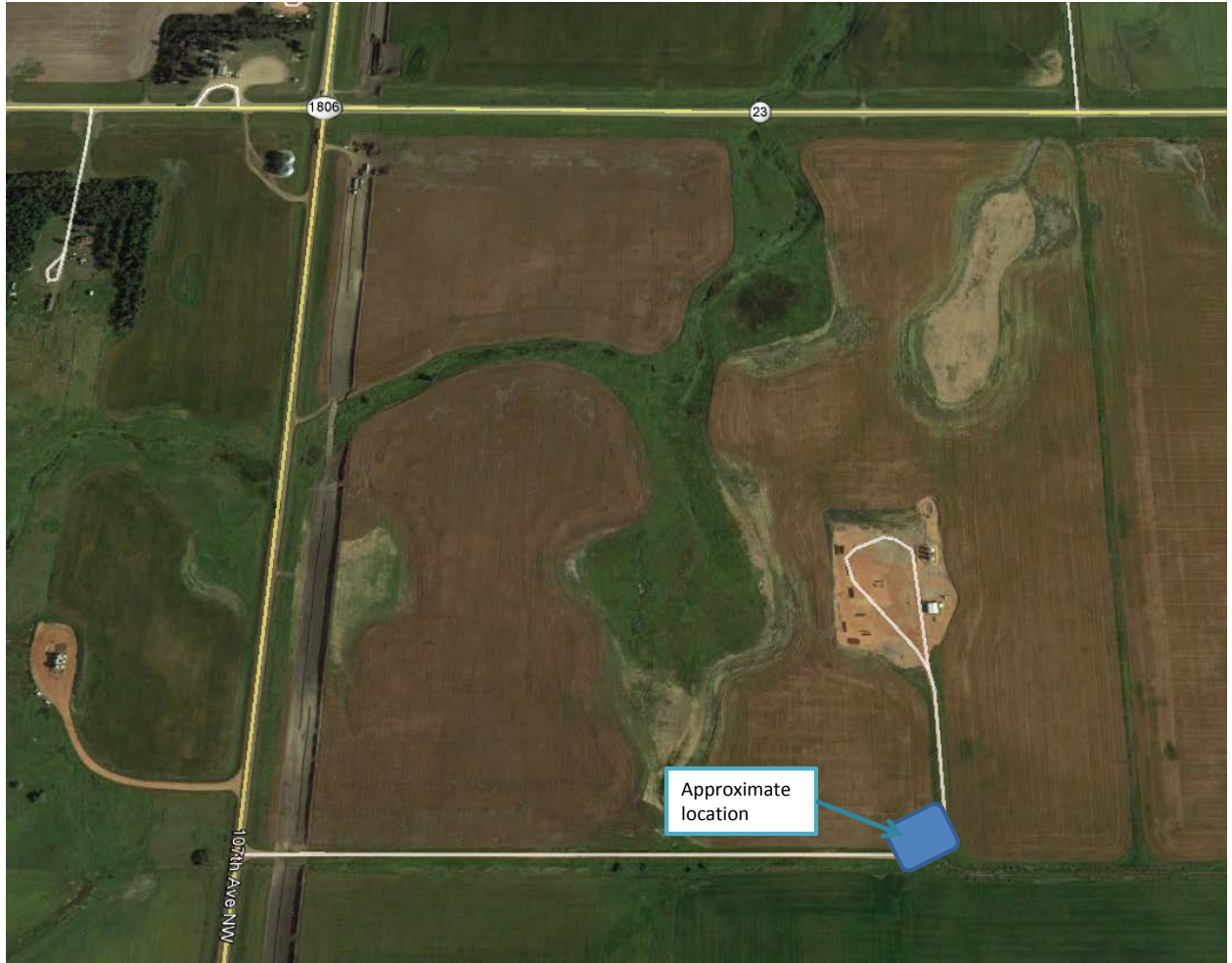


Figure 5 Map View of Vibe Position 2



Figure 6 Map View of Vibe Position 3



Figure 7 Map View of Vibe Position 4



Figure 8 Map View of Vibe Position 5



Figure 9 Map View of Vibe Position 6