ZLR Public Hearing on February 12th, 2019

Presentation Outline

1. Cindy Regan
2. Ken Frjelich
3. Bill Doubler
4. Michael Beck
5. Theresa Schuster
6. Ethel Lund
7. Alan Mikkelson
8. Mallory Frjelich
9. Dennis Mandt
10. Letter from the Church
    a. Rachel Beck
    b. Steve Wetzel
    c. Roxann Engelstad
    d. Sharon Holzapfel
    e. Dave Wilkinson
    f. Todd Birkrem
    g. Rochelle Vander Galien
    h. Pastor Holly Slater
11. Michelle Jensen

The information contained herein pertains to what will be presented by me contradicting the information provided by MacWilliams Co. appraisers who stated that there has been no evidence to show decreased property values as a result of mining and blasting at the Oak Park quarry. This quarry is seeking a new CUP 2018-02449.

Ken Frjelich 1285 Olstad Road, Deerfield, Wisconsin.

Statement at 2/12/19 Zoning and Land Regulation Committee meeting on CUP 2018-02449

Ken Frjelich 1285 Olstad Road, Deerfield, Wisconsin.

Many people have said 'you bought near a quarry, you should expect your property values to go down'. This is a statement lacking thought. Only if you buy property and then after the purchase a quarry is started, should you expect your values to drop. If you buy near a quarry that has been present for decades, you would expect the decreased value to be baked into the price. So dropping values in the case of the Oak Park quarry would not be expected unless something new happened after all the years of operation.

In the case of the Oak Park quarry the 'something new' has been new ownership since 2010 with markedly increased mining and blasting; blasting that has resulted in damage to local properties and I believe, dropping property values.

The quarry hired MacWilliams Co. appraisers. After evaluating data on 4 sites near quarries, they concluded that prices had not changed. The first site was next to a sand mine in Marshfield. Sand mines do not blast. Poor choice. The second was 11 homes near the Cattrell quarry in Cottage Grove. 6 were new one-owner homes built in 2016-2017. Not enough history yet for comparison. Of the 5 others,3 homes showed mixed changes with decreases of 13%, 6%, and an increase of 2%. No real info was given on the other two. The third included 3 homes sold near the Oak Park quarry. One sold at auction, so numbers are questionable. The second sold at 8% below appraisal. The third is the home on MKF18. If you look at the Total Fair Market Value, they all declined between 2010 and 2016 when the quarry was intensely blasting. He also had a fourth group of 3 newer one-owner homes near the quarry. These three also showed decreasing TFMVs between 2010 and 2016. The data looked at and the conclusion made, I believe is questionable.

It is difficult to prove dropping property values, especially in a rural community because there are fewer homes and fewer sales, but in this case, I have evidence that it is occurring.

In 2013, The owner of the 3rd closest home to the Oak Park quarry attended the open book meeting with the Town of Deerfield appraiser and asked for a lower assessment because of the quarry blasting. It was granted and lowered by 6.6%. In 2014 he made another request and it was lowered by 5.7%.

In 2014, the owner of the 2nd closest home attended the open book, requested a lower assessment for the same reasons and it was decreased by 10%.

Tax assessors do not grant lower assessment requests without substantial evidence. The assessors did so with little resistance because they already knew that properties near the quarry were declining in value because of the intensity of activities.

In 2018, the 3rd closest home to the quarry was sold. Purchase price in 2010 was $334,000 (the quarry was inactive for almost 2 years at that time). It sold in December 2018 for $300,000, over 10% loss at a time when Dane Co prices were increasing by over 10%. (Attachment MKF11 and 18)

In 2011, another home, 0.66 miles from the quarry, sold at 12% below assessed evaluation (TAE), 14.6% below list and 6% below total fair market value. In 2014, the same home sold at 4% below TAE, 12% below list and 6% below total fair market value. (attachment MKF19)

Attachments MKF5,6 Show Total Fair Market Values for 9 homes near the quarry from 2010 thru 2012 showing a decline and plateau thru 2015. This matches the years of intense mining and blasting.

Dropping values near quarries is not just a local problem. In 2006, Diane Hite, Economics Professor at Auburn Univ. did a study on over 2800 homes near a quarry in Delaware Co. Ohio. She found that the closer a home was to the quarry, the greater the drop in value. At ½ mile, it was up to 20%. (See Diane Hite 2006, Delaware County, Ohio).

In 1955, in the case Saveland Park Holdings vs Wieland, the Wisconsin Supreme Court held that the preservation of property values in a community is valid because it falls within the promotion of the general welfare. That ruling stands until today. Damaging property lowers the value and violates the general welfare.

I believe that decreased assessments when requested, the house sales for a major losses, and the drop in Total Fair Market Values when the quarry was most active are substantial evidence that Condition #1 was violated. It is up to the applicant to show that this will not continue with a new CUP.

Dennis Mandt 1191 Liberty Road

	Total Assessed Value	Average Assessed Ratio	Total Fair Market Valu	Change 2010 to 2015:
2010	$230,300	0.7777	$296,130	
2011	$257,400	0.9774	$263,352	
2012	$257,400	0.9925	$259,345	9.50%
2013	$257,400	0.9593	$268,216	decrease
2014	$257,300	0.9767	$263,438	
2015	$257,300	0.9601	$267,993	

David Reese 1291 Olstad Road

	Total Assessed Value	Average Assessed Ratio	Total Fair Market Value	Change 2010 to 2015:
2010	$373,500	0.7777	$480,262	
2011	$417,900	0.9774	$427,563	
2012	$417,900	0.9925	$421,058	9%
2013	$417,900	0.9593	$435,630	decrease
2014	$417,900	0.9767	$427,869	
2015	$417,900	0.9601	$435,267	

Shawn Neville 3680 Oak Park Road

	Total Assessed Value	Average Assessed Ratio	Total Fair Market Value	Change 2010 to 2015:
2010	$265,700	0.7777	$341,648	
2011	$320,300	0.9774	$327,706	
2012	$320,300	0.9925	$322,720	16.50%
2013	$299,100	0.9593	$311,790	decrease
2014	$281,400	0.9767	$288,113	
2015	$281,400	0.9601	$293,094	

Karen Harbort 1225 Liberty Road

	Total Assessed Value	Average Assessed Ratio	Total Fair Market Value	Change 2010 to 2015
2010	$202,600	0.7777	$260,512	
2011	$233,200	0.9774	$238,592	
2012	$233,200	0.9925	$234,962	7.80%
2013	$233,200	0.9593	$243,094	decrease
2014	$233,200	0.9767	$238,763	
2015	$233,200	0.9601	$242,891	

Ken Frjelich 1285 Olstad Road

	Total Assessed Value	Average Assessed Ratio	Total Fair Market Value	Change 2010 to 2015
2010	$424,100	0.7777	$545,326	
2011	$450,900	0.9774	$461,326	
2012	$450,900	0.9925	$454,307	22.50%
2013	$450,900	0.9593	$470,030	decrease
2014	$405,300	0.9767	$414,969	
2015	$405,300	0.9601	$422,144	

MKF 5

Total Assessed Value divided by Average Assessed Ratio = Total Fair Market Value

James Opie 3675 Oak Park Road

Total Assessed Value	Average Assessed Ratio	Total Fair Market Value	Change 2010 to 2015
2010 $434,000	0.7777	$558,056	
2011 $521,200	0.9774	$444,035	
2012 $521,200	0.9925	$525,139	2,8%
2013 $521,100	0.9593	$543,209	decrease
2014 $521,100	0.9767	$533,531	
2015 $521,100	0.9601	$542,652	

Ron Anderson 3702 Nelson Lane

Total Assessed Value	Average Assessed Ratio	Total Fair Market Value	Change 2010 to 2015
2010 $251,700	0.7777	$323,677	
2011 $269,500	0.9774	$275,732	
2012 $269,500	0.9925	$271,537	13.30%
2013 $269,500	0.9593	$280,934	decrease
2014 $269,500	0.9767	$275,929	
2015 $269,500	0.9601	$280,700	

Patrick Ryan 3712 Nelson Lane

Total Assessed Value	Average Assessed Ratio	Total Fair Market Value	Change 2010 to 2015
2010 $188,400	0.7777	$242,253	
2011 $223,200	0.9774	$228,361	
2012 $223,200	0.9925	$224,887	4%
2013 $223,200	0.9593	$232,670	decrease
2014 $223,200	0.9767	$228,525	
2015 $223,200	0.9601	$232,476	

Janet Leigh 3920 Oak Park Road

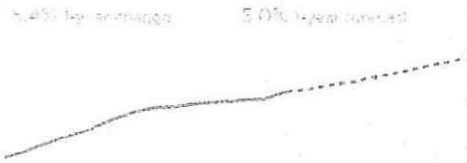
Total Assessed Value	Average Assessed Ratio	Total Fair Market Value	Change 2010 to 2015
2010 $253,300	0.7777	$325,704	
2011 $263,300	0.9774	$269,388	
2012 $263,300	0.9925	$265,290	15%
2013 $263,300	0.9593	$274,471	decrease
2014 $263,300	0.9767	$269,581	
2015 $263,300	0.9601	$274,242	

MKF 6c

Dane County Home Prices & Values

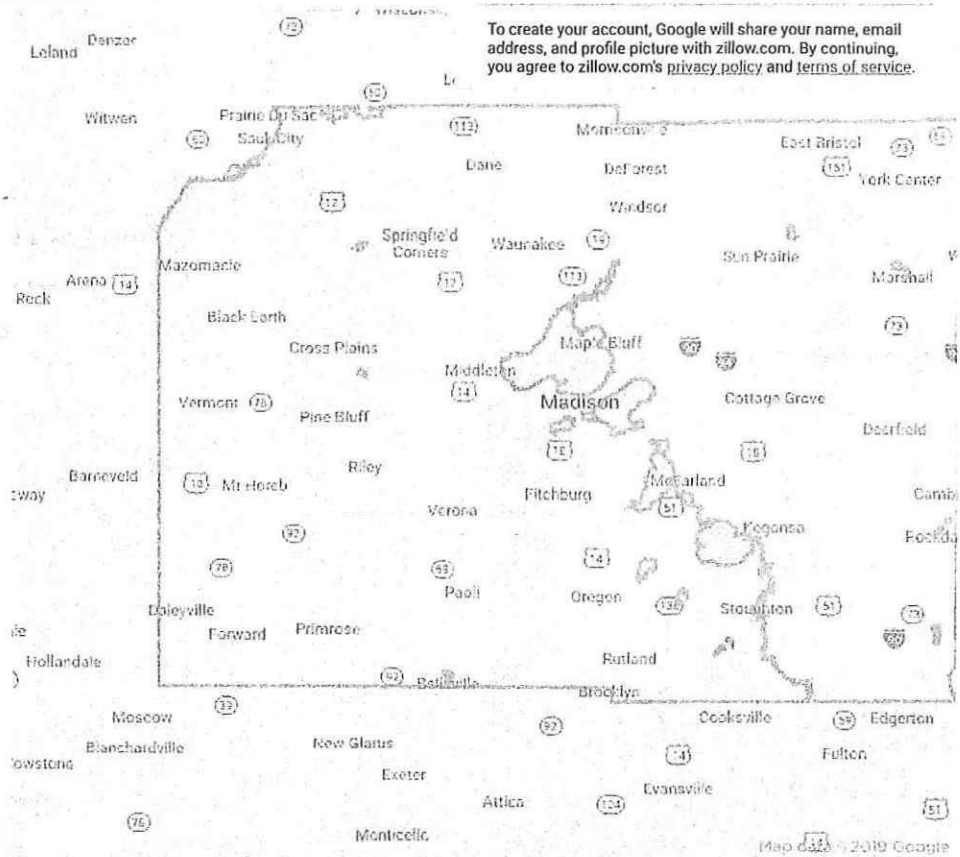
ZILLOW HOME VALUE INDEX

$269,300



The median home value in Dane County is $269,300. Dane County home values have gone up 5.4% over the past year and Zillow predicts they will rise 5.0% within the next year. The median list price per square foot in Dane County is $165, which is higher than the Madison Metro average of $165. The median price of homes currently listed in Dane County is $319,000 while the median price of homes that sold is $261,900. The median rent price in Dane County is $1,650, which is the same as the Madison Metro median of $1,650.

Read more



Dane County Market Overview

Data through Nov 30, 2018

$269,300 ZHVI

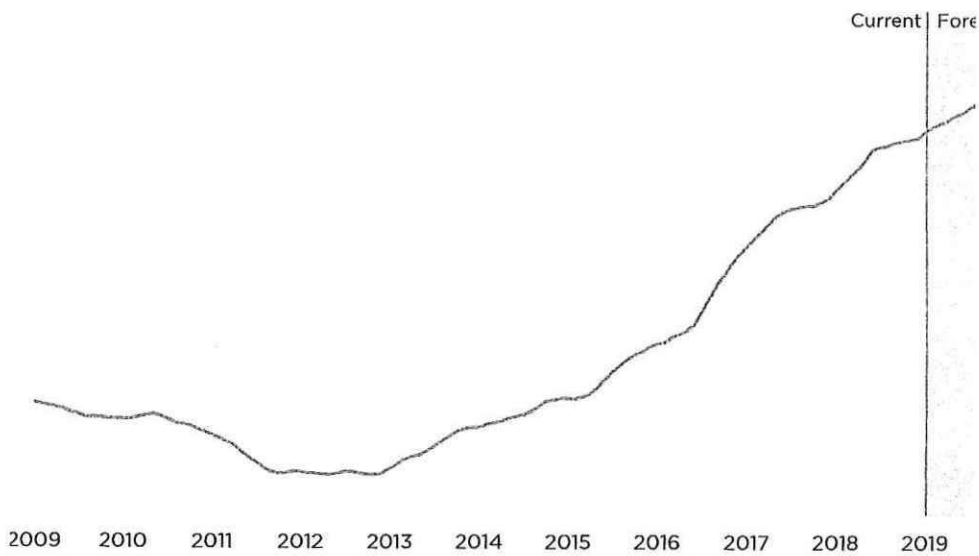
5.0% 1-yr forecast (Nov 30, 2019)

$319,000 Median listing price

$261,900 Median sale price

Zillow Home Value Index | All homes | 1-yr 5-yr Max

Nov 2019 Dane County $282K



Dane County MKE 11

Compare Submit

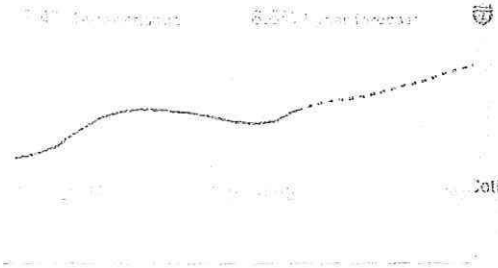
Search home values: City/State/Zip/Neighborhood

Home Values Schools

Deerfield Home Prices & Values

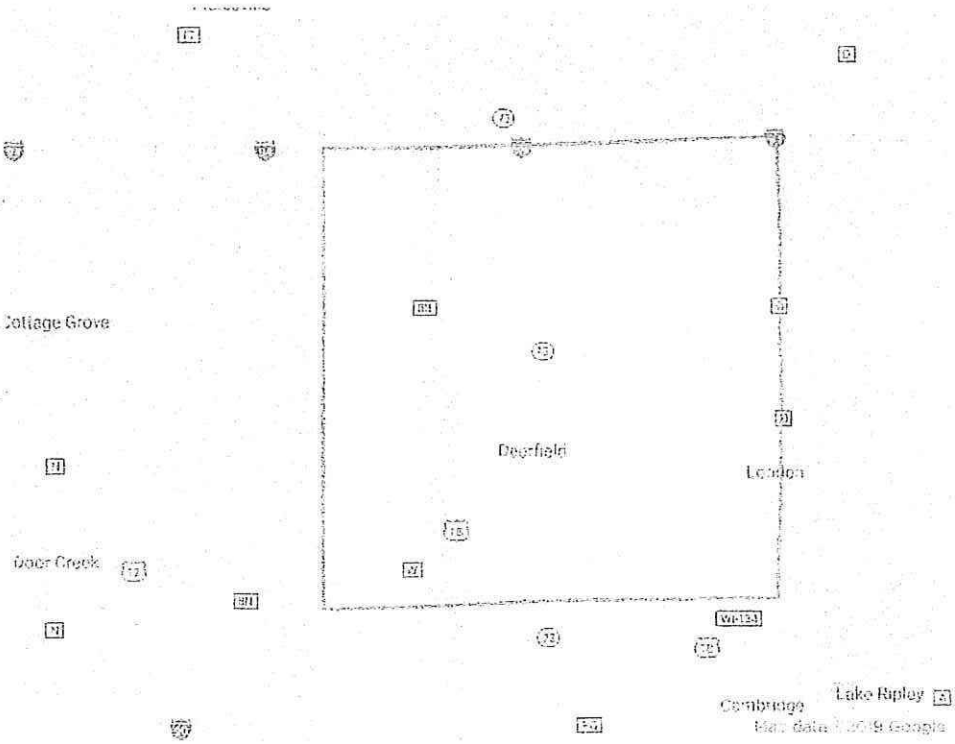
ZILLOW HOME VALUE INDEX

$238,300



The median home value in Deerfield is $238,300. Deerfield home values have gone up 3.4% over the past year and Zillow predicts they will rise 6.6% within the next year.

Read more



Deerfield Market Overview

Data through Nov 30, 2018

$238,300 ZHVI

6.6% 1-yr forecast (Nov 30, 2019)

No data Median listing price

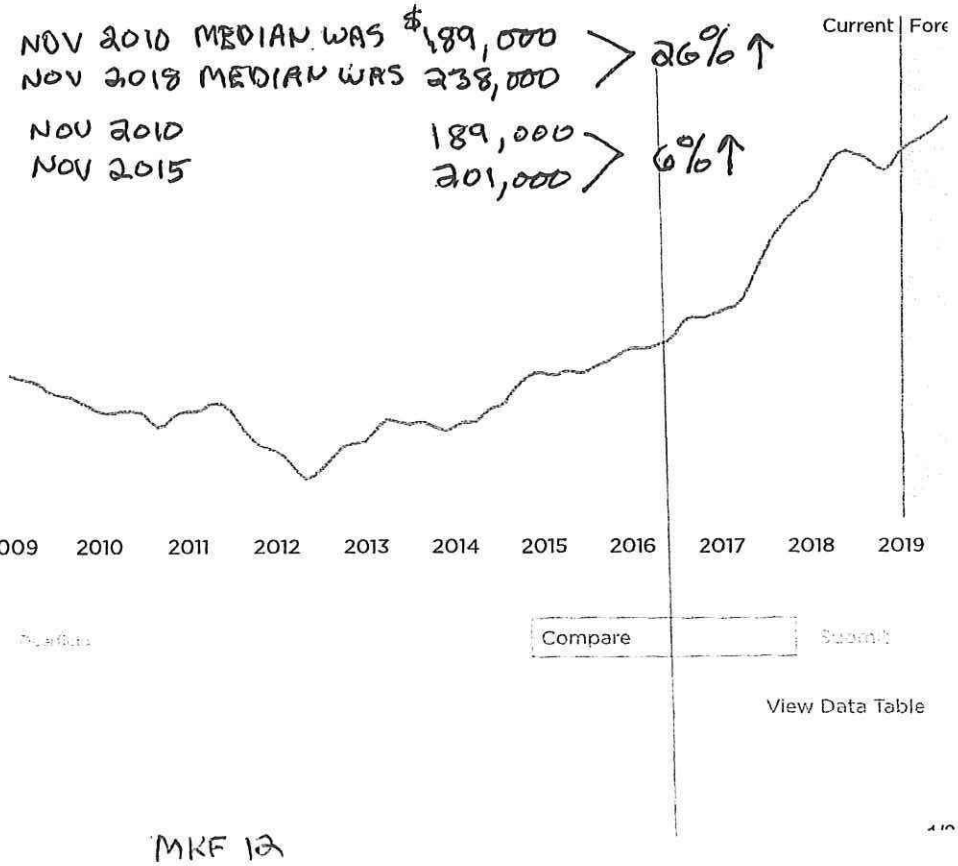
No data Median sale price

Zillow Home Value Index | All homes | 1-yr 5-yr Max

Nov 2019 Deerfield $254K

NOV 2010 MEDIAN WAS $189,000
NOV 2018 MEDIAN WAS 238,000 > 26% ↑

NOV 2010 189,000
NOV 2015 201,000 > 6% ↑

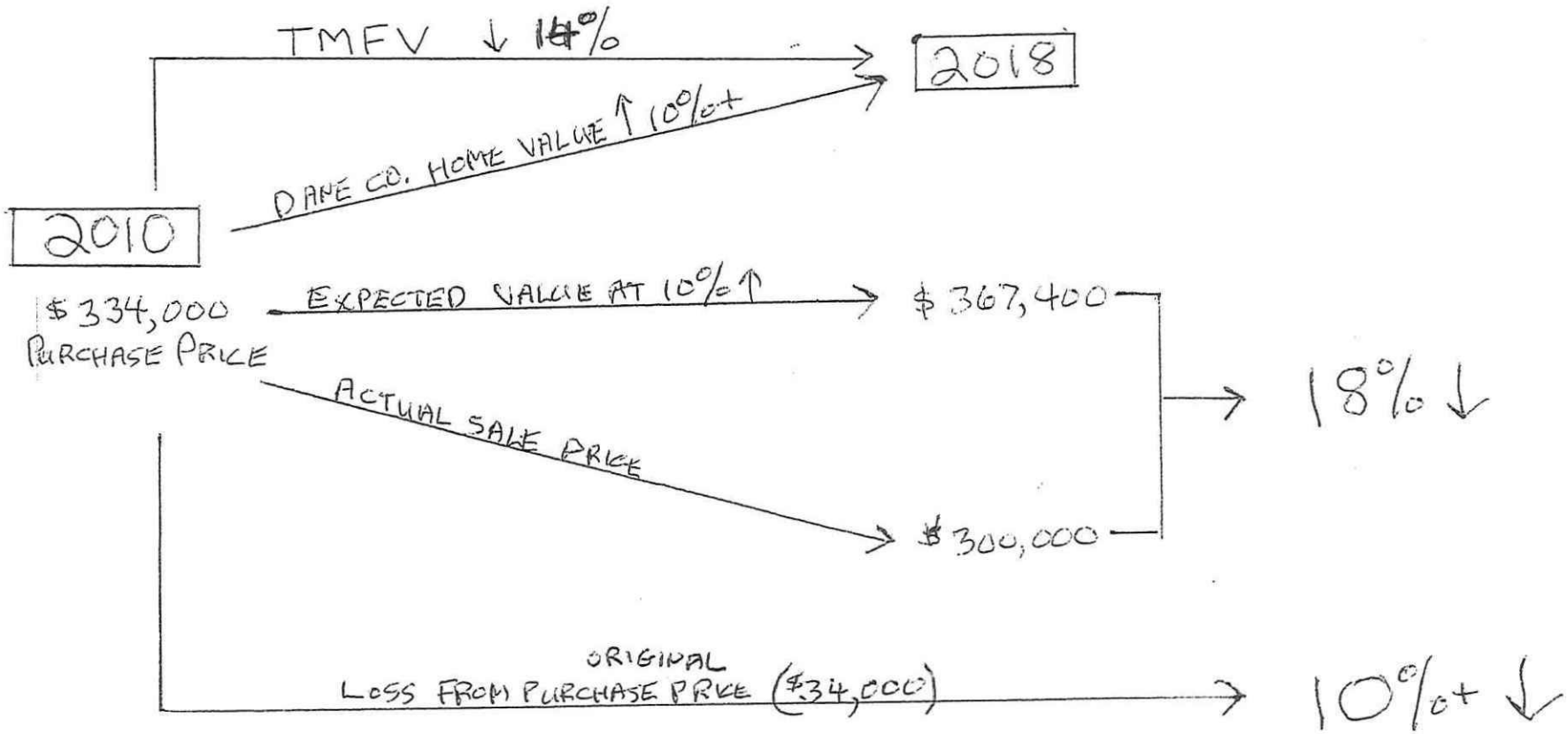


Compare

View Data Table

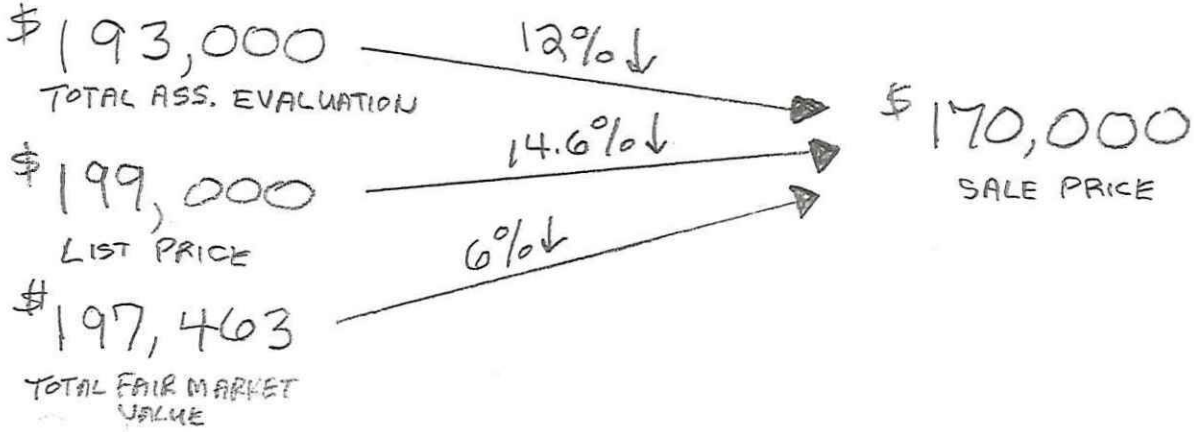
Deerfield Market Health

HOME AT 3680 OAKPARK ROAD, DEERFIELD, WISCONSIN

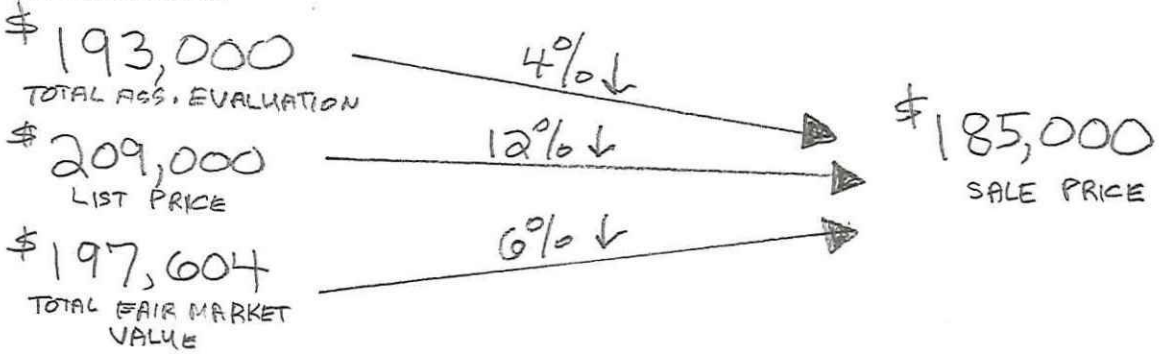


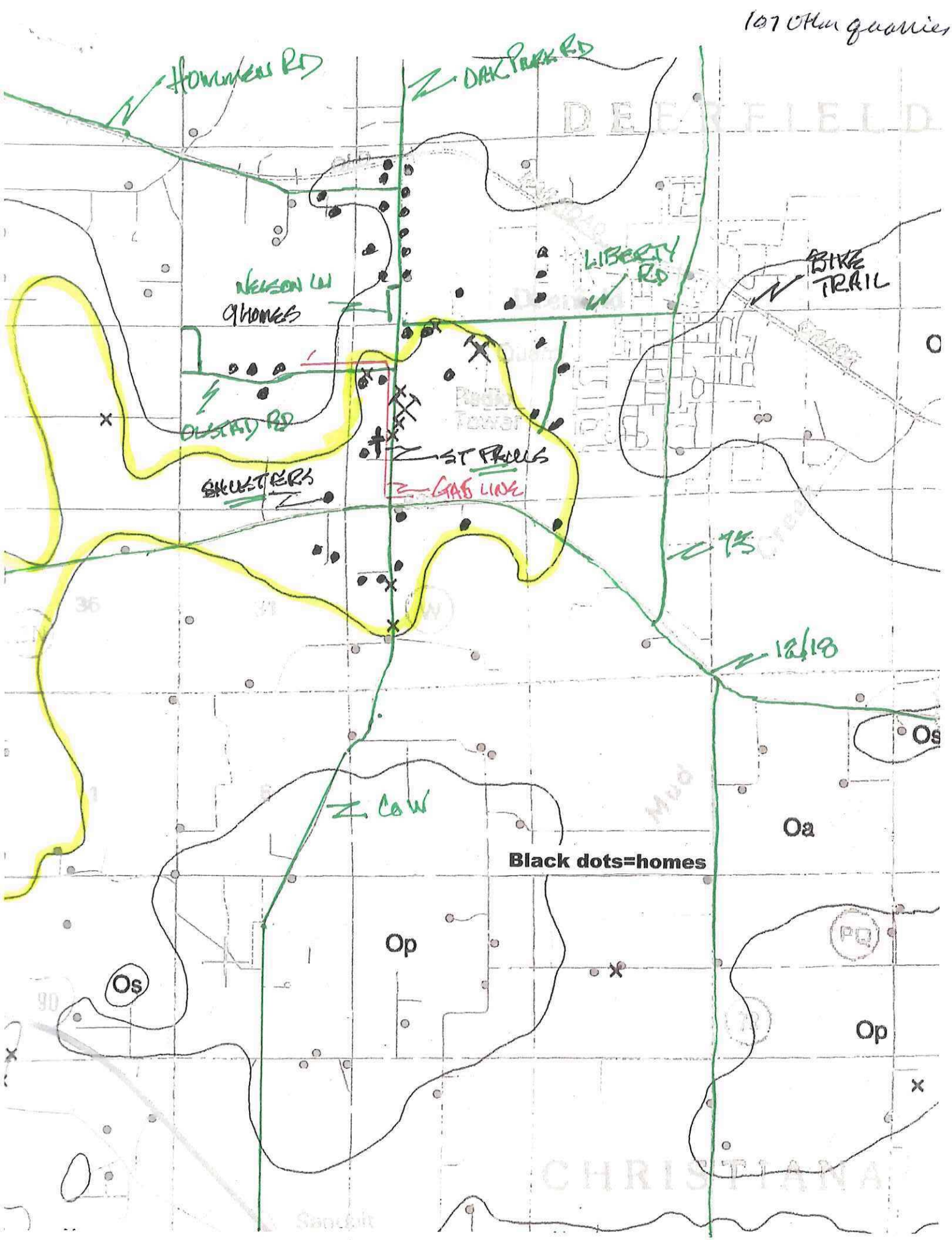
HOME AT 3760 OAK PARK AVENUE (0.66miles from present quarry)

2011



2014




107 Other quarries
HOWARD RD
OAK PARK RD
LIBERTY RD
BIKE TRAIL
NELSON LN
9 HOMES
OLSTAD RD
ST PAULS
GAS LINE
BLUFFTERS
I-75
12/18
CSW
Os
Oa
Op
Black dots=homes

Members of the ZLR Committee I want to thank you for allowing a full time resident of Oak Park Rd/Town of Deerfield to present some fundamental information about the physical makeup of the Oak Park Quarry and how its operation impacts the first and second standards of a CUP.

I have handed you a section of the latest bedrock geology map from the Wisconsin Geological Survey. This rock formation [highlighted in green] was formed over 400 million years ago and is termed to be Platteville dolomite. The very irregular shaped formation stretches from the west edge of the Village of Deerfield seven miles before ending in section 32 of Cottage Grove Twp.

Why can't you see the formation? 15000 years ago the Green Bay lobe of the Wisconsin Glacier came sliding in from the north and stopped in this same area of Dane County forming drumlins. The roller coaster ride on Oak Park Road is a result of what was left when the glacial ice melted. In the quarry area the turning of the glacier formed drumlins that slid together and create the mile and half long monster that is in the quarry area. A textbook drumlin is about 500 ft in length. Inside the drumlin is whatever the glacier picked up and was being carried in the ice. No two drumlins are the same thus have never been classified like rock and soils.

Oak Park Quarry, St. Paul's Liberty Lutheran Church, Schuster's historic round barn, and a number of surrounding homes all sit on the targeted limestone. The newly installed Alliant Energy natural gas line along Oak Park Road and in front of St. Paul's sits on and is imbedded in the limestone. When any blasting at the quarry occurs the dolomite acts much like the head of a snare drum creating action throughout the entire slab and affecting the church, the barn and nearby residences. The ground blast energy does not just stop at the edge of the dolomite but continues into the surrounding sandstone and other materials hidden within the drumlin. On the northern slope along Nelson Ln a layer of black granite is found. My 1880's home and late 1800's barn sit on that black granite layer and get bounced around with every quarry blast even though I'm over a half mile from the quarry. 50 years ago my wife and I spent 18 months in Japan and the quarry creates tremors equal to or greater than any earthquake we experienced.

Standard 1. The operation of Oak Park Quarry not detrimental or endangering comfort? Webster defines comfort as strengthening aid, assistance plus consolation in time of trouble. They follow that it should be a feeling of encouragement, a contented well-being, and a satisfying or enjoyable experience. Oak Park Quarry LLC may be feeling those things but nobody in my Oak Park

neighborhood is sharing those qualities in part because of the way drumlins are part of the geography.

Standard 2. The quarry is not to alter uses, values and enjoyment of other's property. The damage or loss of historical buildings such as the 150+ year old church that has had continuous operation for its entire history or the only round barn in Dane County cannot be risked. Any loss could only be described in volumes of testimonies from church users and those who have memorable experiences at the round barn.

The educational building houses church support activities including post funeral receptions is the Town of Deerfield voting place. Two 4-H clubs and a Boy Scout troop count on this location for their monthly meetings.

A cemetery is a final resting place. The idea that a funeral or family visit to a grave will now face a blasting schedule is unimaginable.

Schuster's round barn is a historic site and so designated by the state. This 1903 architectural master piece hosts 1000's of wide eyed youngsters each fall providing an unreplaceable educational environment that can't be duplicated in Dane County. This business offers employment for 100's of young people who would not be able to gather that experience elsewhere. A single blast at Oak Park Quarry LLC could end the barn's existence and Schuster's livelihood.

There are other drumlins and other quarries, but not two that interact in such a destructive way. In summary one blast at the Oak Park quarry carries too much risk to others. Please do not issue the requested CUP.

Lower Blasting Thresholds
New Blaster
Damage Claims dismissed.

2015 AHLGRIMM EXPLOSIVES BLASTING REPORT

OWNER: Yahara
QUARRY NAME: Oak Park
LOCATION: Deerfield
COUNTY OF: Dane
DATE: 8-12-15
BLASTER: Trent Heins
DRILLER: Yahara
WEATHER CONDITIONS:
WIND: (calm) gusty windy
CLOUDS: (clear) cloudy overcast
BLAST LAYOUT: (Rectangular) Staggered (One Open Face) Two Open Faces Sink Cut Trench

TIME FIRED: 1:16 PM
NUMBER OF HOLES: 20
HOLE DEPTH: 48'
HOLE DIAMETER: 3"
PATTERN: 8' x 8'
MAXIMUM HOLES PER DELAY: 3 Decks/Hole
STEMMING: 16'
TYPE OF INITIATION: electronic (non-electric)
DIST. TO NEAREST STRUCTURE: ____FT. 500 FT. 750 FT. +1000 FT.
SEISMOGRAPH READING: (Yes) No

SEISMOGRAPH NUMBER:	5358	4795	4379	3053
SEISMOGRAPH VALUES: T	1.520 in/sec.	.330 in/sec.	.130 in/sec.	.038 in/sec.
V	.820 in/sec.	.215 in/sec.	.055 in/sec.	.025 in/sec.
L	1.680 in/sec.	.280 in/sec.	.138 in/sec.	.050 in/sec.
NO TRIGGER AT	— in/sec.	— in/sec.	— in/sec.	— in/sec.
PPV	1.680 in/sec.	.320 in/sec.	.138 in/sec.	.050 in/sec.
NOISE	127.6 db.	128.9 db.	118.1 db.	<100.0 db.
DIST. FROM BLAST	300 FT.	792 FT.	____FT.	____FT.
SEISMOGRAPH LOCATION:	Gas Line	1285 Olstad	3680 Oak Park Rd/ Halverson Prop. Line	3513 Oak Park Rd.

MAXIMUM LBS. OF EXPLOSIVES PER DELAY: 36
POWDER FACTOR: (Lbs. / Ton): .41
TONS OF ROCK BLASTED: 5211
TOTAL LBS. OF EXPLOSIVES USED: 2160

Revised 01/05/2015

* NOTE - Mis-Fire: Bad Cap Between 1st Deck + 2nd Deck on Hole Number 1.

2015 AHLGRIMM EXPLOSIVES BLASTING REPORT

OWNER: Yahara

QUARRY NAME: Oak Park

LOCATION: Deerfield

COUNTY OF: Dane

DATE: 8-12-15

BLASTER: Trent Heins

DRILLER: Yahara

CONTINUATION OF SEISMOGRAPHS AND THEIR READINGS:

SEISMOGRAPH NUMBER:	4794			
SEISMOGRAPH VALUES:	T .193 in/sec.	T_____ in/sec.	T_____ in/sec	T_____ in/sec
	V .125 in/sec.	V_____in/sec.	V_____in/sec.	V_____in/sec.
	L .145 in/sec.	L_____in/sec.	L_____in/sec.	L_____in/sec.
NO TRIGGER AT	— in/sec.	_____in/sec.	_____in/sec.	_____in/sec.
PPV	.193 in/sec.	_____in/sec.	_____in/sec.	_____in/sec.
NOISE	135.3 db.	_____db.	_____db.	_____db.
DIST. FROM BLAST	_____FT.	_____FT.	_____FT.	_____FT.
SEISMOGRAPH LOCATION:	1191 Liberty			

Revised 01/05/2015

Instantel

Event Report

#9

Date/Time	Vert at 13:16:51 August 12, 2015
Trigger Source	Geo: 0.020 in/s
Range	Geo: 4.999 in/s
Record Time	4.0 sec at 1024 sps

Serial Number	5358 V 2.61 MiniMate
Battery Level	6.6 Volts
Unit Calibration	February 4, 2015 by Instantel
File Name	G358FZ6K.W30
Post Event Notes	
Client : Yahara Oak Park	
Location : Gas Line	

Notes
Location:
Client:
User Name: Ahlgrimm Explosives Company, Inc.
Converted: August 13, 2015 08:34:45 (V10.72)

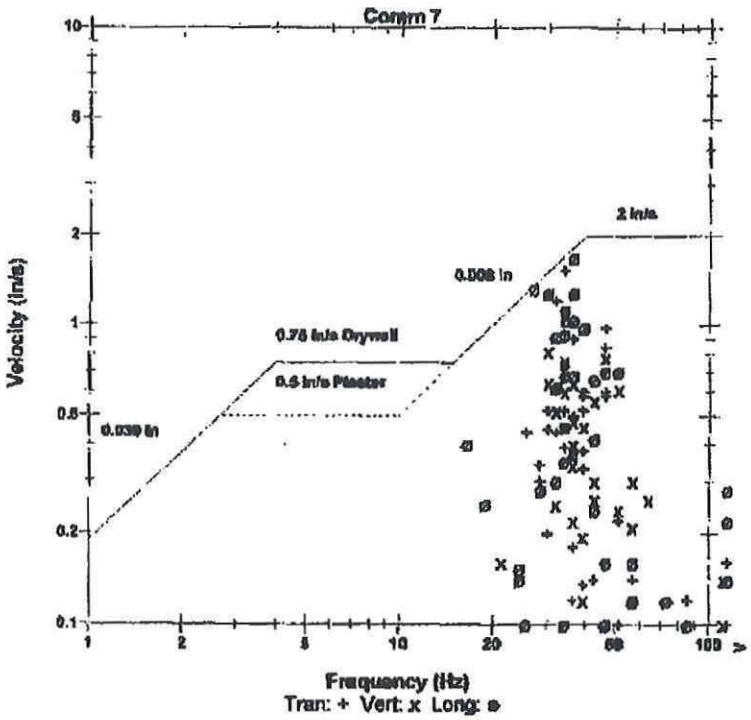
Extended Notes

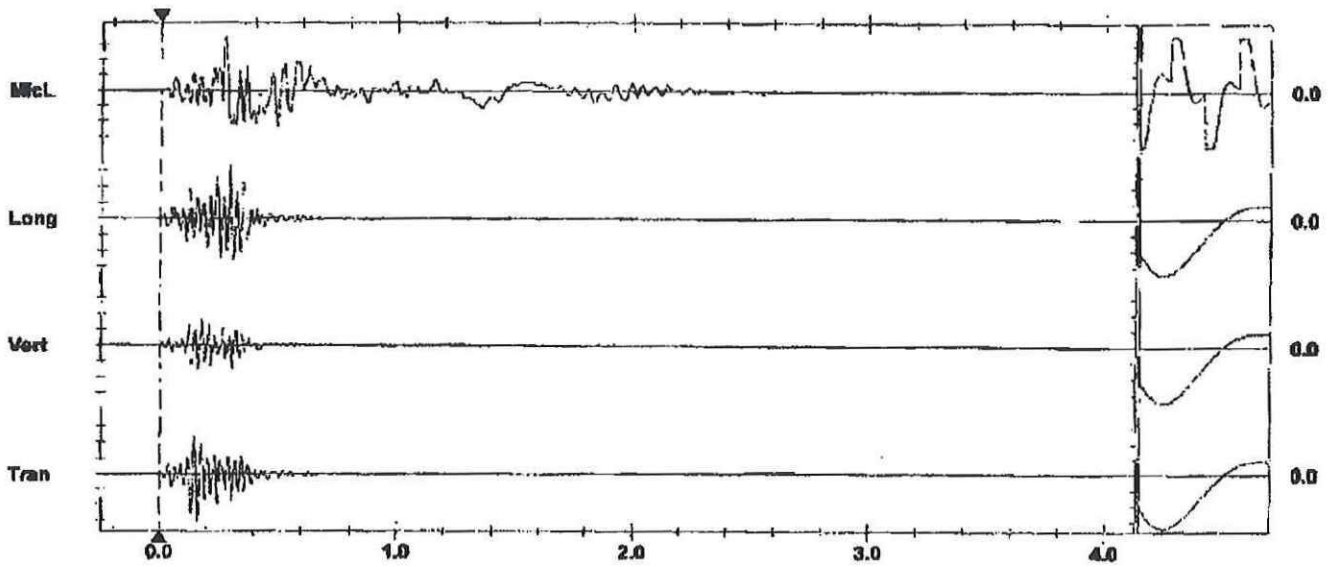
Microphone	Linear Weighting
PSPL	127.6 dB(L) at 0.271 sec
ZC Freq	20 Hz
Channel Test	Passed (Freq = 20.0 Hz Amp = 307 mv)

	Tran	Vert	Long	
PPV	1.520	0.820	1.680	in/s
ZC Freq	34	30	34	Hz
Time (Rel. to Trig)	0.163	0.179	0.286	sec
Peak Acceleration	0.848	0.583	0.901	g
Peak Displacement	0.006	0.003	0.008	in
Sensor Check	Passed	Passed	Passed	
Frequency	7.7	7.8	7.8	Hz
Overswing Ratio	3.6	3.6	3.5	

Peak Vector Sum 1.723 in/s at 0.163 sec

Wisconsin Administrative Code





Time Scale: 0.20 sec/div **Amplitude Scale:** Geo: 0.500 in/s/div Mic: 0.002 psi(L)/div
Trigger =

Sensor Check

p.2

Aug 15 15:07:34a

Instantel

Event Report

#5

Date/Time	Long at 13:16:58 August 12, 2015
Trigger Source	Geo: 0.020 in/s
Range	Geo: 4.999 in/s
Record Time	4.0 sec at 1024 sps

Notes
Location:
Client:
User Name: Ahlgrimm Explosives Company, Inc.
Converted: August 13, 2015 06:19:16 (V10.72)

Serial Number	4795 V 2.61 MiniMate
Battery Level	6.4 Volts
Unit Calibration	February 12, 2015 by Instantel
File Name	F795FZ6K.W/A0

Post Event Notes
Client : Yahara Oak Park
Location 1285 Olstad

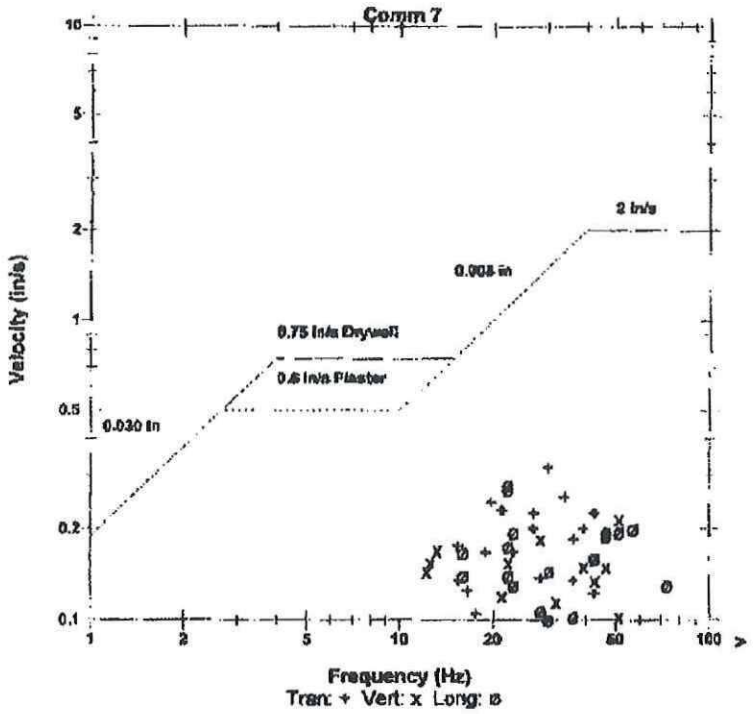
Extended Notes

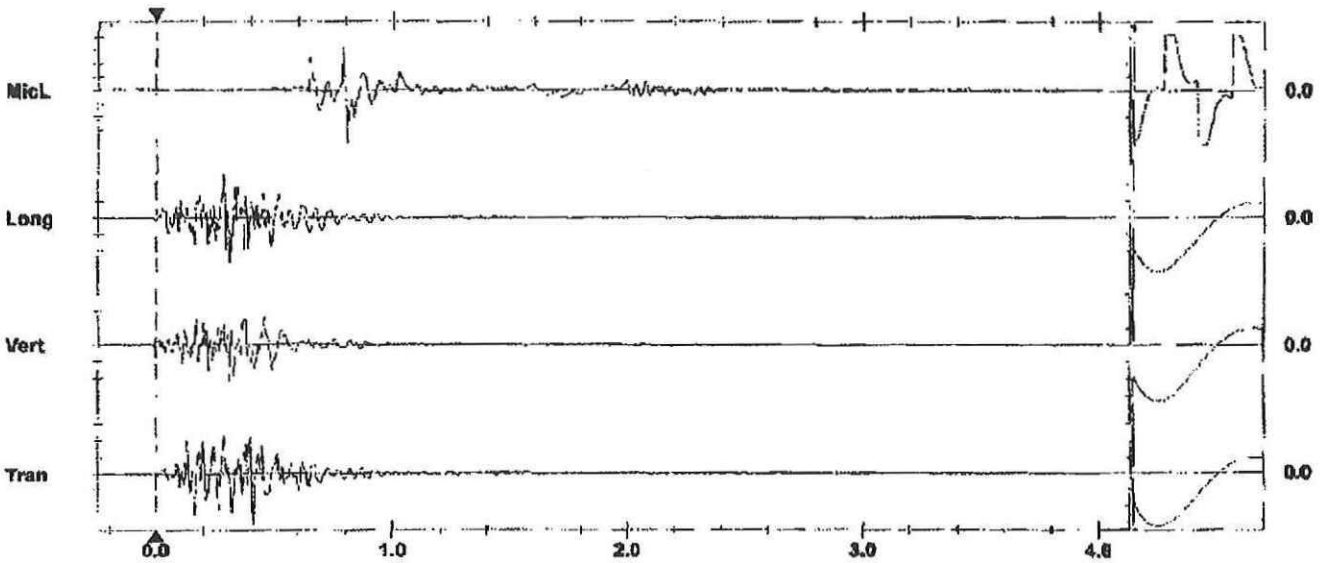
Microphone	Linear Weighting
PSPL	128.9 dB(L) at 0.807 sec
ZC Freq	9.1 Hz
Channel Test	Passed (Freq = 20.0 Hz Amp = 498 mv)

	Tran	Vert	Long	
PPV	0.320	0.215	0.280	in/s
ZC Freq	27	51	21	Hz
Time (Rel. to Trig)	0.412	0.310	0.312	sec
Peak Acceleration	0.172	0.159	0.212	g
Peak Displacement	0.002	0.002	0.002	in
Sensor Check	Passed	Passed	Passed	
Frequency	7.7	7.8	7.8	Hz
Overswing Ratio	3.8	3.5	3.8	

Peak Vector Sum 0.374 in/s at 0.286 sec

Wisconsin Administrative Code





Time Scale: 0.20 sec/div **Amplitude Scale:** Geo: 0.100 in/s/div Mic: 0.002 psi(L)/div
Trigger = ▶—— ——◀

Sensor Check

p.3

Aug 15 15:07:34a

Instantel

Event Report

4,

Date/Time	Long at 13:17:01 August 12, 2015
Trigger Source	Geo: 0.020 in/s
Range	Geo: 4.999 in/s
Record Time	4.0 sec at 1024 sps

Notes
Location:
Client:
User Name: Ahlgrimm Explosives Company, Inc.
Converted: August 13, 2015 05:46:40 (V10.72)

Extended Notes

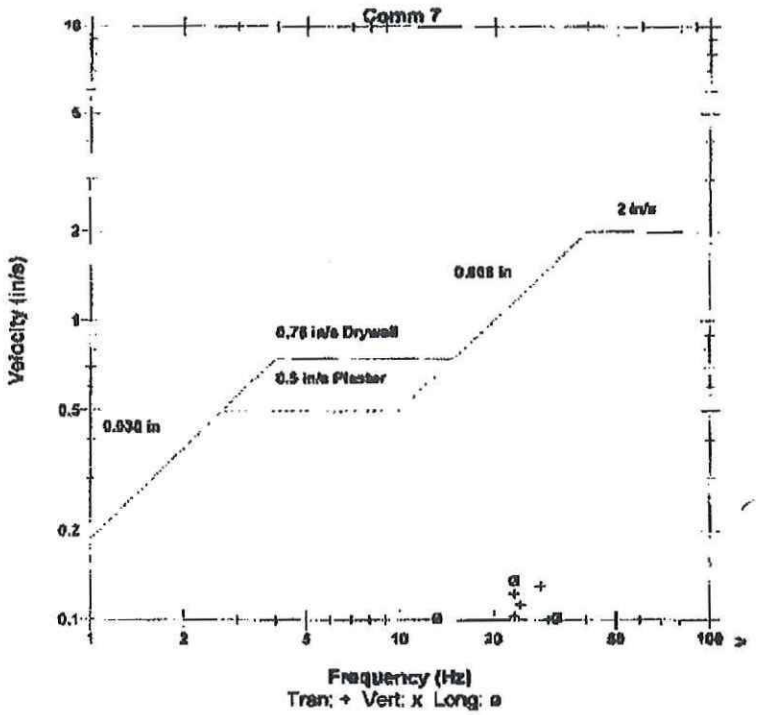
Microphone	Linear Weighting
PSPL	118.1 dB(L) at 1.112 sec
ZC Freq	8.0 Hz
Channel Test	Passed (Freq = 20.0 Hz Amp = 640 mv)

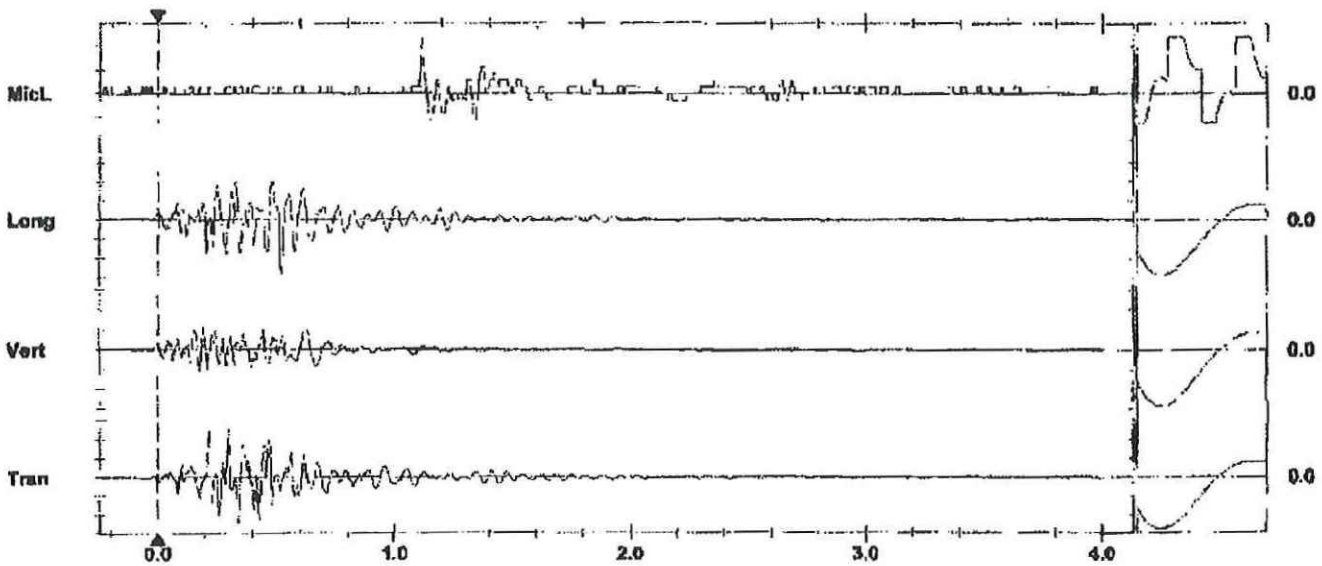
	Tran	Vert	Long	
PPV	0.130	0.055	0.138	in/s
ZC Freq	28	28	24	Hz
Time (Rel. to Trig)	0.301	0.175	0.522	sec
Peak Acceleration	0.066	0.040	0.053	g
Peak Displacement	0.001	0.001	0.001	in
Sensor Check	Passed	Passed	Passed	
Frequency	8.1	8.0	7.7	Hz
Overswing Ratio	3.8	3.5	3.8	

Peak Vector Sum 0.144 in/s at 0.522 sec

Serial Number 4379 V 2.61 MiniMate
Battery Level 6.4 Volts
Unit Calibration January 7, 2015 by Instantel
File Name F379FZ6K.WD0
Post Event Notes
Client : Yahara Oak Park
Location : 3680 Oak Park Rd / Halverson Property Line

Wisconsin Administrative Code





Time Scale: 0.20 sec/div **Amplitude Scale:** Geo: 0.050 in/s/div Mic: 0.001 psi(L)/div
Trigger = ▶— — — ◀

Sensor Check

p.4

Aug 15 15:07:35a

Instantel

Event Report

Date/Time	Tran at 13:16:53 August 12, 2015
Trigger Source	Geo: 0.020 in/s
Range	Geo: 4.999 in/s
Record Time	4.0 sec at 1024 sps

Notes
Location:
Client:
User Name:
Converted: August 13, 2015 05:20:16 (V10.72)

Serial Number	3053 V 2.61 MiniMate
Battery Level	6.3 Volts
Unit Calibration	February 11, 2015 by Instantel
File Name	E053FZ6K.W50

Post Event Notes
Client : Yahara Oak Park
Location : 3513 Oak Park Rd

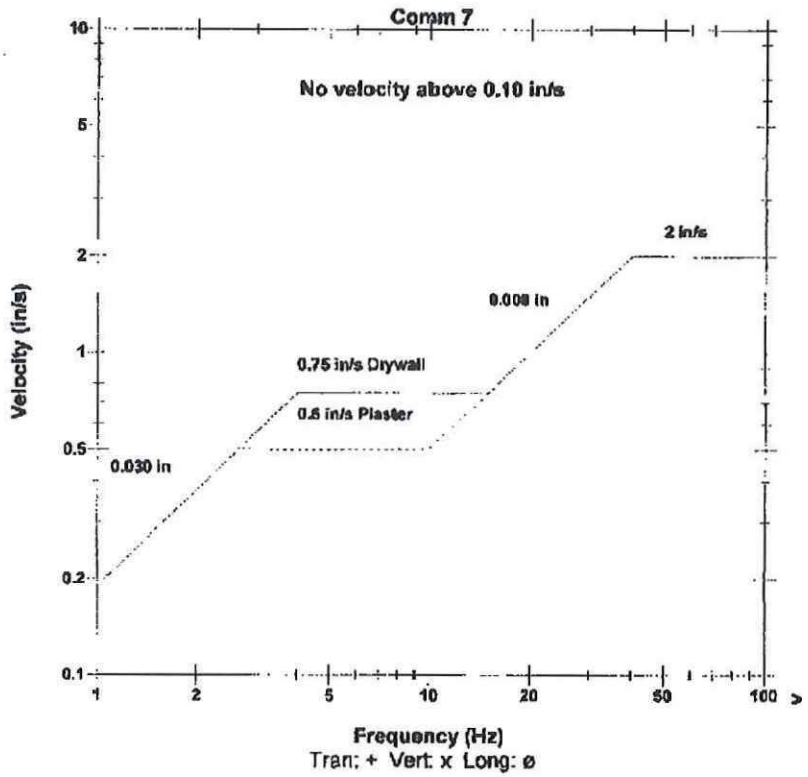
Extended Notes

Microphone	Linear Weighting
PSPL	<100 dB(L)
ZC Freq	N/A
Channel Test	Check (Freq = 0.0 Hz Amp = 1 mv)

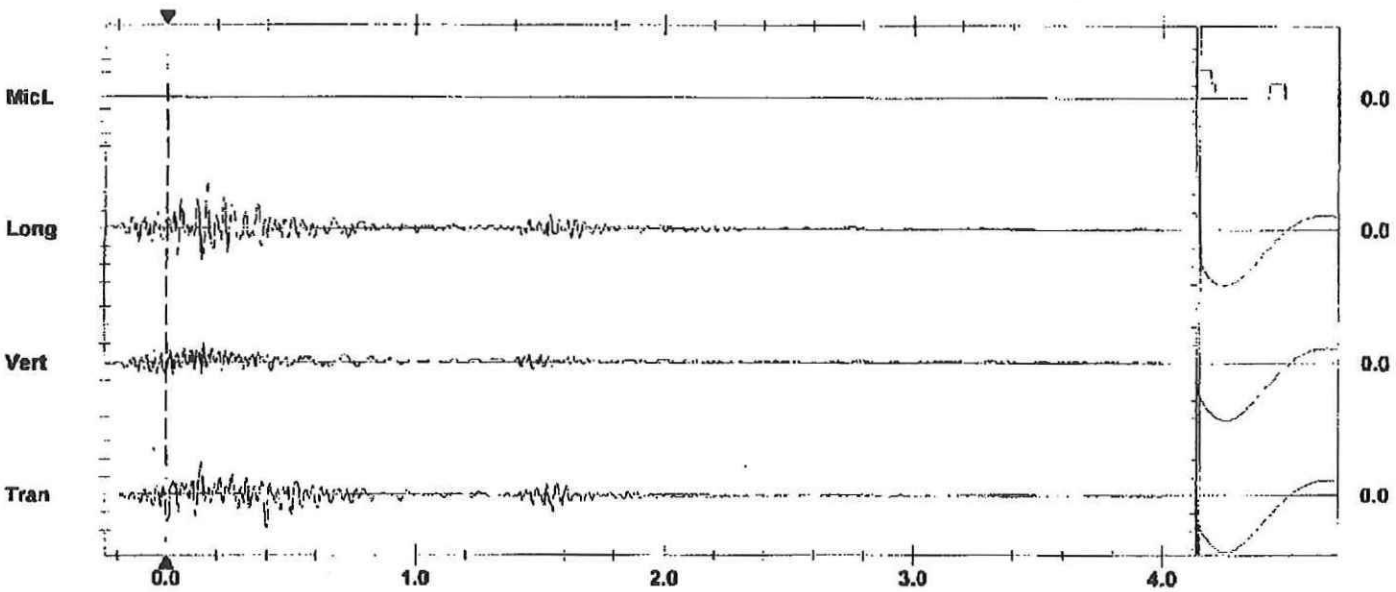
	Tran	Vert	Long	
PPV	0.038	0.025	0.050	in/s
ZC Freq	20	43	28	Hz
Time (Rel. to Trig)	0.138	0.148	0.163	sec
Peak Acceleration	0.020	0.020	0.020	g
Peak Displacement	0.000	0.000	0.000	in
Sensor Check	Passed	Passed	Passed	
Frequency	7.7	7.8	8.1	Hz
Overswing Ratio	3.4	3.5	3.9	

Peak Vector Sum 0.053 in/s at 0.139 sec
N/A: Not Applicable

Wisconsin Administrative Code



Tran: + Vert: x Long: ø



Time Scale: 0.20 sec/div **Amplitude Scale:** Geo: 0.020 in/s/div Mic: 0.001 psi(L)/div
Trigger =

Sensor Check

p.1

Aug 15 15:07:34a

Instantel

Event Report

Date/Time	Long at 13:16:55 August 12, 2015
Trigger Source	Geo: 0.020 in/s
Range	Geo: 4.999 in/s
Record Time	4.0 sec at 1024 sps

Notes
Location:
Client:
User Name:
Converted: August 13, 2015 06:46:50 (V10.72)

Serial Number	4794 V 2.61 MiniMate
Battery Level	6.5 Volts
Unit Calibration	January 15, 2015 by Instantel
File Name	F794FZ6K.W70
Post Event Notes	
Client : Yahara Oak Park	
Location : 1191 Liberty	

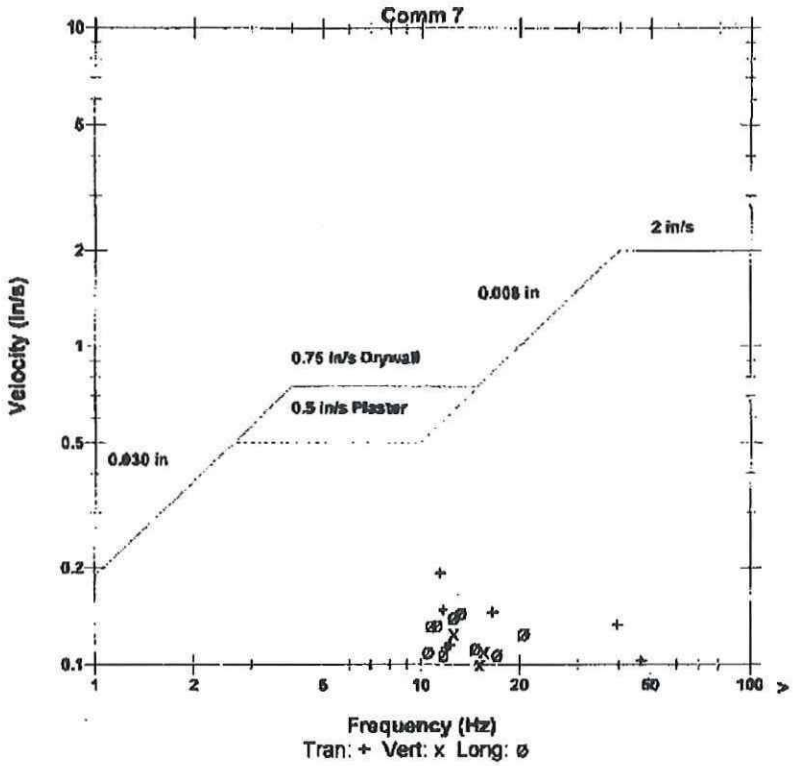
Extended Notes

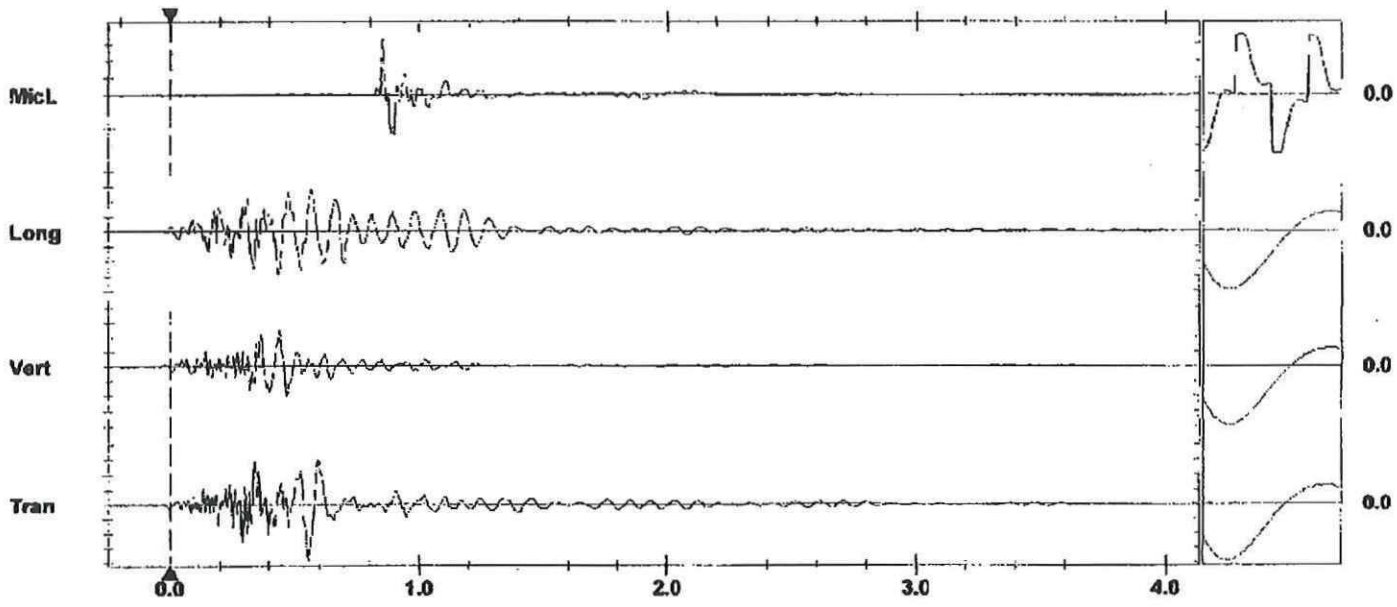
Microphone	Linear Weighting
PSPL	135.3 dB(L) at 0.851 sec
ZC Freq	21 Hz
Channel Test	Passed (Freq = 20.0 Hz Amp = 506 mv)

	Tran	Vert	Long	
PPV	0.193	0.125	0.145	in/s
ZC Freq	11	12	13	Hz
Time (Rel. to Trig)	0.556	0.440	0.436	sec
Peak Acceleration	0.086	0.060	0.060	g
Peak Displacement	0.002	0.001	0.002	in
Sensor Check	Passed	Passed	Passed	
Frequency	8.3	8.0	8.0	Hz
Overswing Ratio	3.5	3.5	3.5	

Peak Vector Sum 0.218 in/s at 0.559 sec

Wisconsin Administrative Code





Time Scale: 0.20 sec/div **Amplitude Scale:** Geo: 0.050 in/s/div Mic: 0.005 psi(L)/div
Trigger =

Sensor Check

	Oak Park Quarry Blasting Data 2015		Exceeds Local Ordinance Limits Exceeds State Regulations No Data from Blaster	Peak Particle Velocities (PPV) & corresponding Frequencies Tran (in/sec) Freq (Hz)	 Vert (in/sec) Freq (Hz)	 Long (in/sec) Freq (Hz)	Airblast Overpressure (dB)	Distance from Blast (ft)	Comments
		Note:	Only one violation per site per event is noted for each type of regulation, i.e., overpressure, PPV, and frequency						
#1	July 21 (Tuesday)								
			Gas Pipeline						
	Southeast Corner		Farmhouse - 3579 Oak Park Rd	**0.035** 24	0.018 39	0.030 18	109.5	3,485	
			Mandt - 1191 Liberty Rd	**0.320** 43	0.065 16	0.225 32	114.0	1,373	
	Number of Holes 28		Berninger - 3680 Oak Park Rd	**0.180** 32	0.063 39	0.050 20	106.0	1,637	
	Hole Depth (ft) 48 Holes per Delay (decks) 2 Rock Blasted (tons) 7,295 Explosives Used (lbs) 2,952		**Liberty Church - 3513 Oak Park Rd**	0.258 39	0.140 51	**0.290** 34	109.5	1,531	
#2	July 24 (Friday)								
	Non-electronic		Gas Pipeline						
	Southeast Corner		Farmhouse - 3579 Oak Park Rd	no trigger at 0.02					
			Mandt - 1191 Liberty Rd	**0.138** 10	0.075 18	0.103 30	124.6		
	Number of Holes 25		Berninger - 3680 Oak Park Rd	0.053 16	0.035 12	**0.063** 19	115.6		
	Hole Depth (ft) 49 Holes per Delay (decks) 3 Rock Blasted (tons) 6,650 Explosives Used (lbs) 2,640		**Liberty Church - 3513 Oak Park Rd**	**0.153** 30	0.053 20	0.145 39	109.5		
#3	July 29 (Wednesday)								
	Non-electronic		Gas Pipeline						
	Southeast Corner		Farmhouse - 3579 Oak Park Rd	**0.045** 28	0.020 37	0.028 37	109.5		
			Mandt - 1191 Liberty Rd	**0.175** 27	0.065 34	0.145 43	120.6		
	Number of Holes 24		Berninger - 3680 Oak Park Rd	0.108 34	0.045 32	**0.115** 23	106.0		
	Hole Depth (ft) 49 Holes per Delay (decks) 3 Rock Blasted (tons) 6,384 Explosives Used (lbs) 2,159		**Liberty Church - 3513 Oak Park Rd**	**0.330** 39	0.170 43	0.300 37	106.0		
#4	August 3 (Monday) - Shot #1								
	Non-electronic		Gas Pipeline	**0.063** 39	0.028 37	0.063 27	115.6	368	
			Farmhouse - 3579 Oak Park Rd	0.018 19	0.013 18	**0.028** 20	100.0	3,485	
			Mandt - 1191 Liberty Rd	**0.080** 14	0.055 43	0.070 30	113.5	1,162	
	Number of Holes 8		Property Line - 3680 Oak Park Rd	**0.048** 16	0.028 20	0.035 17	112.0	1,531	
	Hole Depth (ft) 49 Holes per Delay (decks) 3 Rock Blasted (tons) 2,128 Explosives Used (lbs) 792		**Liberty Church - 3513 Oak Park Rd**	0.055 32	0.025 34	**0.090** 26	126.0	1,267	

#5	**August 3 (Monday) - Shot #2**							
	Non-electronic	Gas Pipeline	0.450 47	0.210 57	**0.630** 34	124.1	368	
		Farmhouse - 3579 Oak Park Rd	0.023 16	0.010 34	**0.030** 17	100.0	3,485	
	Number of Holes 30	Mandt - 1191 Liberty Rd	0.095 30	0.095 43	**0.130** 51	113.5	1,162	
	Hole Depth (ft) 17	Property Line - 3680 Oak Park Rd	**0.103** 21	0.040 17	0.073 17	109.5	1,531	
	Holes per Delay (decks) 2							
	Rock Blasted (tons) 2,768	**Liberty Church - 3513 Oak Park Rd**	**0.060** 28	0.015 57	0.050 34	122.6	1,267	
	Explosives Used (lbs) 928							
#6	**August 4 (Tuesday)**							
	Non-electronic	Gas Pipeline	**2.200** 21	0.960 34	1.360 28	114.0	256	
		Farmhouse - 3579 Oak Park Rd	**0.065** 39	0.028 24	0.050 20	100.0	3,010	
	Number of Holes 20	Mandt - 1191 Liberty Rd	**0.208** 13	0.168 14	0.160 16	115.6	1,003	
	Hole Depth (ft) 48	Property Line - 3680 Oak Park Rd	**0.163** 16	0.133 19	0.120 16	100.0	1,373	
	Holes per Delay (decks) 3							
	Rock Blasted (tons) 5,211	**Liberty Church - 3513 Oak Park Rd**	0.055 32	0.023 51	**0.058** 22	115.6	2,112	
	Explosives Used (lbs) 2,000							
#7	**August 6 (Thursday)**							
	Non-electronic	Gas Pipeline	**1.760** 39	0.760 30	1.400 39	121.6	300	
		Mandt - 1191 Liberty Rd	0.145 37	0.173 37	**0.270** 15	115.6	1,003	
	Number of Holes 19	Property Line - 3680 Oak Park Rd	**0.113** 20	0.085 12	0.093 13	106.0	1,531	
	Hole Depth (ft) 47	Harbort - 1225 Liberty Rd	**0.125** 12	0.043 18	0.060 12	106.0	1,584	
	Holes per Delay (decks) 3							
	Rock Blasted (tons) 4,847	**Liberty Church - 3513 Oak Park Rd**	0.050 26	0.020 47	**0.068** 28	116.9	2,112	
	Explosives Used (lbs) 2,360							
#8	**August 7 (Friday) - Shot #1**							
	Non-electronic	Gas Pipeline	**1.560** 34	0.840 37	1.480 27	123.5	300	
		Mandt - 1191 Liberty Rd	0.150 13	0.103 19	**0.183** 12	115.6		
		Property Line - 3680 Oak Park Rd	**0.140** 23	0.095 20	0.135 15	109.5		
	Number of Holes 24	Harbort - 1225 Liberty Rd	**0.133** 10	0.055 21	0.075 12	100.0	1,584	
	Hole Depth (ft) 48	Frjelich - 1285 Olstad Rd	**0.360** 32	0.180 28	0.280 16	106.0	792	
	Holes per Delay (decks) 3							
	Rock Blasted (tons) 6,253	**Liberty Church - 3513 Oak Park Rd**						**Received no data for the church**
	Explosives Used (lbs) 2,600							

#9	**August 7 (Friday) - Shot #2**							
	Non-electronic	Gas Pipeline	**0.270**	0.130	0.220	120.8	300	
			28	43	32			
		Mandt - 1191 Liberty Rd	0.215	0.258	**0.228**	106.0		
			15	17	17			
		Property Line - 3680 Oak Park Rd	**0.118**	0.035	0.083	106.0		
			14	17	13			
	Number of Holes 18	Harbort - 1225 Liberty Rd	0.070	0.050	**0.078**	100.0	1,584	
	Hole Depth (ft) 50		15	30	15			
	Holes per Delay (decks) 4	Frjelich - 1285 Olstad Rd	**0.068**	0.040	0.060	100.0	792	
	Rock Blasted (tons) 4,885		34	39	27			
	Explosives Used (lbs) 2,080	**Liberty Church - 3513 Oak Park Rd**						**Received no data for the church**
#10	**August 11 (Tuesday)**							
	Non-electronic	Gas Pipeline	**0.820**	0.170	0.330	116.9		
			39	37	37			
		Mandt - 1191 Liberty Rd	0.270	0.240	**0.410**	109.5		
			16	14	15			
		Property Line - 3680 Oak Park Rd	**0.170**	0.070	0.075	106.0		
			20	26	43			
	Number of Holes 19	Harbort - 1225 Liberty Rd	**0.108**	0.063	0.075	106.0		
	Hole Depth (ft) 50		20	28	27			
	Holes per Delay (decks) 3	Frjelich - 1285 Olstad Rd	**0.173**	0.070	0.120	115.6		**Event report for the church given to the Town**
	Rock Blasted (tons) 5,157		20	34	24			
	Explosives Used (lbs) 2,720	**Liberty Church - 3513 Oak Park Rd**	**0.090**	0.028	0.058	106.0		**was incorrect - used Event report given to church**
			20	37	20			
#11	**August 12 (Wednesday)**							
	Non-electronic	Gas Pipeline	1.520	0.820	**1.680**	127.6	300	
			34	30	34			
	Misfire !!!!!!	Mandt - 1191 Liberty Rd	**0.193**	0.125	0.145	135.3		
			11	12	13			
		Property Line - 3680 Oak Park Rd	0.130	0.055	**0.138**	118.1		
			28	28	24			
	Number of Holes 20	Harbort - 1225 Liberty Rd						**Received no data for 1225 Liberty Rd**
	Hole Depth (ft) 48							
	Holes per Delay (decks) 3	Frjelich - 1285 Olstad Rd	**0.320**	0.215	0.280	128.9	792	
	Rock Blasted (tons) 5,211		27	51	21			**Seismograph at church**
	Explosives Used (lbs) 2,160	**Liberty Church - 3513 Oak Park Rd**	0.038	0.025	0.050	< 100		**not working, data incorrect as noted by**
			20	43	28			**State Blasting Inspector**
#12	**August 14 (Friday) - Shot #1**							
	Non-electronic	Gas Pipeline	**1.440**	0.940	1.240	120.0	300	
			23	47	21			
		Mandt - 1191 Liberty Rd	0.110	0.090	**0.153**	119.1	1,003	
			13	15	12			
		Property Line - 3680 Oak Park Rd	**0.108**	0.073	0.100	106.0	1,373	
			18	28	18			
	Number of Holes 20	Harbort - 1225 Liberty Rd	**0.083**	0.053	0.063	100.0		
	Hole Depth (ft) 47		11	20	17			
	Holes per Delay (decks) 3	Frjelich - 1285 Olstad Rd	**0.460**	0.190	0.180	109.5	528	
	Rock Blasted (tons) 5,102		19	18	16			
	Explosives Used (lbs) 2,640	**Liberty Church - 3513 Oak Park Rd**	0.030	0.018	**0.045**	109.5	2,059	
			26	51	23			

#13	**August 14 (Friday) - Shot #2**							
	Non-electronic	Gas Pipeline	**0.870**	0.390	0.510	118.1	350	
			28	32	28			
		Mandt - 1191 Liberty Rd	**0.258**	0.200	0.243	112.0	898	
			18	16	14			
		Property Line - 3680 Oak Park Rd	**0.245**	0.063	0.133	100.0	1,373	
			16	18	17			
		Harbort - 1225 Liberty Rd	**0.128**	0.068	0.108	100.0		
	Number of Holes 18		20	20	15			
	Hole Depth (ft) 50	Frjelich - 1285 Olstad Rd	**0.140**	0.065	0.108	106.0	634	
	Holes per Delay (decks) 3		19	34	20			
	Rock Blasted (tons) 4,885		0.060	0.023	**0.083**	109.5	212	**Error in distance listed**
	Explosives Used (lbs) 2,238	**Liberty Church - 3513 Oak Park Rd**	26	39	24			
#14	**August 18 (Tuesday)**							
	Non-electronic	Gas Pipeline	0.440	0.240	**0.510**	120.0		
			24	32	28			
		Mandt - 1191 Liberty Rd	0.250	0.260	**0.450**	112.0		
			27	16	21			
		Property Line - 3680 Oak Park Rd	**0.175**	0.093	0.108	109.5		
			17	18	14			
		Harbort - 1225 Liberty Rd	0.113	0.070	**0.140**	106.0		
	Number of Holes 19		21	19	17			
	Hole Depth (ft) 50	Frjelich - 1285 Olstad Rd	0.138	0.055	**0.168**	114.0		
	Holes per Delay (decks) 3		18	20	18			
	Rock Blasted (tons) 5,157		**0.093**	0.038	0.080	116.9		
	Explosives Used (lbs) 2,400	**Liberty Church - 3513 Oak Park Rd**	27	37	19			
	State Seismograph Check	**Liberty Church - 3513 Oak Park Rd**	**0.090**	0.038	0.070	119.0		**State seismograph consistent w/ blaster's**
			20	36	22			
#15	**August 24 (Monday)**							
	Non-electronic	Gas Pipeline	**1.680**	0.660	1.200	109.5	320	
			15	37	23			
		Mandt - 1191 Liberty Rd	**0.168**	0.110	0.140	122.3	1,056	
			12	17	19			
		Property Line - 3680 Oak Park Rd	0.123	0.078	**0.125**	106.0	1,373	
			14	10	15			
		Harbort - 1225 Liberty Rd	**0.080**	0.060	0.050	125.1	1,584	
	Number of Holes 20		12	16	13			
	Hole Depth (ft) 47	Frjelich - 1285 Olstad Rd	**0.440**	0.155	0.410	114.0	686	
	Holes per Delay (decks) 3		17	30	34			
	Rock Blasted (tons) 5,102		**0.078**	0.028	0.055	116.9	2,112	
	Explosives Used (lbs) 2,080	**Liberty Church - 3513 Oak Park Rd**	21	30	20			
#16	**September 8 (Tuesday)**							
	Non-electronic	Gas Pipeline						
	Flyrock Accident Occurs	Mandt - 1191 Liberty Rd	**0.630**	0.200	0.430	120.0	1,003	
			37	47	39			
		Property Line - 3680 Oak Park Rd	**0.168**	0.063	0.125	123.5	1,056	**Note:**
			32	37	20			**Flyrock Accident reported**
		Harbort - 1225 Liberty Rd	**0.140**	0.080	0.110	124.1	1,584	**Violates State Regulations**
	Number of Holes 21		32	32	32			
	Hole Depth (ft) 48	Frjelich - 1285 Olstad Rd	**0.138**	0.063	0.123	109.5	686	
	Holes per Delay (decks) 3		34	37	39			
	Rock Blasted (tons) 5,472		**0.320**	0.125	0.280	118.1	1,584	
	Explosives Used (lbs) 2,480	**Liberty Church - 3513 Oak Park Rd**	34	43	30			

#17	**September 14 (Monday)**							
	Non-electronic	Gas Pipeline						
		Mandt - 1191 Liberty Rd	**0.245**	0.093	0.210	115.6	1,531	
			39	39	22			
		Property Line - 3680 Oak Park Rd	**0.085**	0.050	0.058	112.0	1,795	
			27	24	22			
	Number of Holes 18	Harbort - 1225 Liberty Rd	0.073	0.060	**0.085**	116.9	2,112	
	Hole Depth (ft) 48		23	20	34			
	Holes per Delay (decks) 3	Frjelich - 1285 Olstad Rd	**0.098**	0.043	0.083	119.1	1,267	
	Rock Blasted (tons) 4,690		34	34	34			
	Explosives Used (lbs) 1,838	**Liberty Church - 3513 Oak Park Rd**	0.235	0.090	**0.290**	106.0	1,531	
			16	37	23			
	State Seismograph Check	**Liberty Church - 3513 Oak Park Rd**	**0.300**	0.123	0.165	104.0		**State seismograph consistent w/ blaster's**
			23	42	23			
#18	**September 15 (Tuesday)**							
	Non-electronic	Gas Pipeline						
		Mandt - 1191 Liberty Rd	**0.350**	0.105	0.255	109.5	1,531	
			47	30	51			
		Property Line - 3680 Oak Park Rd	0.078	0.050	**0.093**	119.1	1,795	
			20	20	24			
	Number of Holes 18	Harbort - 1225 Liberty Rd	0.105	0.065	**0.110**	116.9	2,112	
	Hole Depth (ft) 48		27	21	21			
	Holes per Delay (decks) 3	Frjelich - 1285 Olstad Rd	**0.088**	0.045	0.053	120.0	1,267	
	Rock Blasted (tons) 4,690		39	32	14			
	Explosives Used (lbs) 1,760	**Liberty Church - 3513 Oak Park Rd**	0.280	0.090	**0.370**	106.0	1,056	
			22	26	28			
#19	**September 17 (Thursday)**							
	Non-electronic	Gas Pipeline						
	Southeast Corner	Mandt - 1191 Liberty Rd	0.100	0.080	**0.140**	115.6	1,531	
			30	32	43			
		Property Line - 3680 Oak Park Rd	0.060	0.050	**0.063**	114.0	1,795	
			34	22	27			
	Number of Holes 18	Harbort - 1225 Liberty Rd	**0.095**	0.035	0.058	116.9	2,112	
	Hole Depth (ft) 48		28	34	27			
	Holes per Delay (decks) 3	Frjelich - 1285 Olstad Rd	**0.125**	0.045	0.068	116.9	1,267	
	Rock Blasted (tons) 4,690		21	47	30			
	Explosives Used (lbs) 1,880	**Liberty Church - 3513 Oak Park Rd**	0.173	0.053	**0.213**	100.0	1,056	
			30	64	37			
#20	**September 25 (Friday)**							
	Non-electronic	Gas Pipeline						
		Mandt - 1191 Liberty Rd	0.085	0.045	**0.115**	130.6	1,531	
			20	20	17			
		Property Line - 3680 Oak Park Rd	**0.065**	0.028	0.065	100.0	1,795	
			19	20	22			
	Number of Holes 17	Harbort - 1225 Liberty Rd	**0.060**	0.050	0.055	109.5	2,112	
	Hole Depth (ft) 49		20	20	18			
	Holes per Delay (decks) 3	Frjelich - 1285 Olstad Rd						**Received no data for 1285 Olstad Rd**
	Rock Blasted (tons) 4,476							
	Explosives Used (lbs) 1,757	**Liberty Church - 3513 Oak Park Rd**	0.198	0.070	**0.370**	106.0	1,056	
			20	37	26			

#21	September 28 (Monday)								
	Non-electronic		Gas Pipeline						
			Mandt - 1191 Liberty Rd	**0.255**	0.088	0.220	114.0	1,531	
				20	18	30			
			Property Line - 3680 Oak Park Rd	0.148	0.055	**0.155**	109.5	1,795	
				34	16	27			
			Harbort - 1225 Liberty Rd	**0.115**	0.040	0.085	100.0	2,112	
	Number of Holes 30			28	24	28			
	Hole Depth (ft) 48		Frjelich - 1285 Olstad Rd	**0.155**	0.043	0.078	114.0	1,267	
	Holes per Delay (decks) 3			32	43	47			
	Rock Blasted (tons) 7,817		**Liberty Church - 3513 Oak Park Rd**	0.185	0.083	**0.230**	100.0	1,056	
	Explosives Used (lbs) 3,435			21	51	28			
	State Seismograph Check		Liberty Church - 3513 Oak Park Rd	**0.223**	0.100	0.198	103.0		State seismograph consistent w/ blaster's
				26	42	20			
#22	October 1 (Thursday)								
	Non-electronic		Gas Pipeline	**0.180**	0.065	0.120	120.0	1,162	
				23	34	22			
			Mandt - 1191 Liberty Rd	**0.270**	0.130	0.270	109.5	1,531	
				39	20	51			
			Property Line - 3680 Oak Park Rd	**0.180**	0.108	0.078	100.0	1,795	
				34	30	24			
			Harbort - 1225 Liberty Rd	0.088	0.058	**0.105**	106.0	2,112	
	Number of Holes 21			21	30	19			
	Hole Depth (ft) 48		Frjelich - 1285 Olstad Rd	**0.080**	0.048	0.078	114.0	1,267	
	Holes per Delay (decks) 3			32	30	13			
	Rock Blasted (tons) 5,472		**Liberty Church - 3513 Oak Park Rd**	0.310	0.105	**0.410**	100.0	1,056	
	Explosives Used (lbs) 2,437			30	39	24			
#23	October 2 (Friday)								
	Electronic		Gas Pipeline	0.595	0.361	**0.663**	113.1	355	
				43	47	37			
			Mandt - 1191 Liberty Rd	0.085	0.088	**0.135**	119.1	1,109	
				17	12	19			
			Property Line - 3680 Oak Park Rd	**0.090**	0.063	0.085	106.0	1,162	
				10	11	12			
			Harbort - 1225 Liberty Rd	**0.063**	0.023	0.045	109.5	1,690	
	Number of Holes 20			11	13	10			
	Hole Depth (ft) 41-44		Frjelich - 1285 Olstad Rd	0.160	0.073	**0.195**	115.4	634	
	Holes per Delay (decks) 1			11	9.7	10			
	Rock Blasted (tons) 4,614		**Liberty Church - 3513 Oak Park Rd**	**0.048**	0.019	0.027	110.4	1,531	
	Explosives Used (lbs) 2,398			14	37	21			
	State Seismograph Check		Liberty Church - 3513 Oak Park Rd	no trigger at 0.06					State seismograph consistent w/ blaster's
#24	October 12 (Monday)								
	Electronic		Gas Pipeline	0.390	0.225	**0.470**	126.0	355	
				23	43	26			
			Mandt - 1191 Liberty Rd	0.120	0.115	**0.140**	120.8	1,109	
				12	14	12			
			Property Line - 3680 Oak Park Rd	**0.125**	0.043	0.113	114.0	1,162	
				14	17	16			
			Harbort - 1225 Liberty Rd	**0.090**	0.035	0.065	106.0	1,690	
	Number of Holes 18			8	12	14			
	Hole Depth (ft) 41-44		Frjelich - 1285 Olstad Rd	0.155	0.238	**0.280**	109.5	581	
	Holes per Delay (decks) 1			13	47	43			
	Rock Blasted (tons) 4,153		**Liberty Church - 3513 Oak Park Rd**	**0.030**	0.015	0.025	115.6	1,531	
	Explosives Used (lbs) 1,554			22	51	27			
	State Seismograph Check		Liberty Church - 3513 Oak Park Rd	no trigger at 0.06					State seismograph consistent w/ blaster's

#25	**October 13 (Tuesday)**							
	Electronic	Gas Pipeline	0.650	0.350	**0.740**	112.0	367	
			51	43	30			
		Mandt - 1191 Liberty Rd	**0.188**	0.073	0.160	123.5	1,267	
			12	9.0	12			
		Property Line - 3680 Oak Park Rd	**0.115**	0.068	0.063	114.0	1,426	
			10	39	16			
	Number of Holes 18	Harbort - 1225 Liberty Rd	**0.075**	0.053	0.068	106.0		
	Hole Depth (ft) 41		7.0	8.0	7.0			
	Holes per Delay (decks) 1	Frjelich - 1285 Olstad Rd	0.400	0.205	**0.470**	109.5		
	Rock Blasted (tons) 4,006		15	47	73			
	Explosives Used (lbs) 1,758	**Liberty Church - 3513 Oak Park Rd**	0.038	0.025	**0.038**	119.1	2,059	
			20	7	17			
#26	**November 9 (Monday)**							
	Electronic	Gas Pipeline	0.460	0.280	**0.700**	128.9	337	
			43	47	20			
		Mandt - 1191 Liberty Rd	0.115	0.068	**0.133**	125.1	1,109	
			13	13	12			
		Property Line - 3680 Oak Park Rd	**0.108**	0.060	0.083	114.0	1,162	
			18	26	23			
	Number of Holes 16	Harbort - 1225 Liberty Rd	**0.110**	0.045	0.060	115.6	1,690	
	Hole Depth (ft) 40		10	15	10			
	Holes per Delay (decks) 1	Frjelich - 1285 Olstad Rd	**0.263**	0.183	0.238	115.6	528	
	Rock Blasted (tons) 3,474		14	12	16			
	Explosives Used (lbs) 1,758	**Liberty Church - 3513 Oak Park Rd**	**0.055**	0.018	0.033	115.6	1,532	
			8.0	6.0	30			
#27	**November 11 (Wednesday)**							
	Electronic	Gas Pipeline	0.198	0.090	**0.250**	127.2	350	
			26	19	27			
		Mandt - 1191 Liberty Rd	0.048	0.048	**0.083**	120.0	1,109	
			18	15	13			
		Property Line - 3680 Oak Park Rd	**0.118**	0.055	0.093	114.0	1,162	
			11	17	16			
	Number of Holes 19	Harbort - 1225 Liberty Rd	**0.065**	0.023	0.025	100.0	1,690	
	Hole Depth (ft) 40		18	14	24			
	Holes per Delay (decks) 1	Frjelich - 1285 Olstad Rd	0.180	0.223	**0.290**	119.1	528	
	Rock Blasted (tons) 4,125		14	21	18			
	Explosives Used (lbs) 1,755	**Liberty Church - 3513 Oak Park Rd**	**0.040**	0.018	0.020	112.0	1,531	
			15	7.0	20			
#28	**November 19 (Thursday)**							
	Electronic	Gas Pipeline	**0.065**	0.030	0.063	118.1	1,162	
			18	39	15			
		Mandt - 1191 Liberty Rd	**0.143**	0.060	0.106	109.5	1,531	
			11	47	47			
		Property Line - 3680 Oak Park Rd	**0.073**	0.033	0.060	109.5	1,795	
			30	24	22			
	Number of Holes 12	Harbort - 1225 Liberty Rd	0.058	0.035	**0.068**	106.0	2,112	
	Hole Depth (ft) 50		18	22	12			
	Holes per Delay (decks) Decked (2)	Frjelich - 1285 Olstad Rd	**0.065**	0.045	0.050	109.5	1,267	
	Rock Blasted (tons) 3,257		10	30	15			
	Explosives Used (lbs) 1,240	**Liberty Church - 3513 Oak Park Rd**	**0.200**	0.110	0.138	106.0	1,056	
			30	54	24			

#29	**December 1 (Tuesday)**								
	Electronic		Gas Pipeline	0.083	0.068	**0.105**	106.0		
				34	43	34			
			Mandt - 1191 Liberty Rd	**0.213**	0.055	0.100	115.6		
				27	24	11			
			Property Line - 3680 Oak Park Rd	**0.040**	0.035	0.035	112.0		
				24	24	20			
	Number of Holes	11	Harbort - 1225 Liberty Rd	**0.063**	0.033	0.053	114.0		
	Hole Depth (ft)	50		27	22	21			
	Holes per Delay (decks)	Decked (2)	Frjelich - 1285 Olstad Rd	**0.095**	0.035	0.045	112.0		
	Rock Blasted (tons)	2,986		37	34	32			
	Explosives Used (lbs)	1,036	**Liberty Church - 3513 Oak Park Rd**	**0.210**	0.095	0.153	106.0		
				28	57	27			
#30	**December 2 (Wednesday)**								
	Electronic		Gas Pipeline	**0.088**	0.048	0.075	106.0	1,267	
				34	39	34			
			Mandt - 1191 Liberty Rd	0.110	0.060	**0.130**	113.5	1,267	
				19	28	51			
			Property Line - 3680 Oak Park Rd	0.043	0.045	**0.065**	106.0	2,270	
				16	23	19			
	Number of Holes	16	Harbort - 1225 Liberty Rd						**Received no data for 1225 Liberty Rd**
	Hole Depth (ft)	47							
	Holes per Delay (decks)	Decked (2)	Frjelich - 1285 Olstad Rd	**0.098**	0.045	0.055	114.0	1,637	
	Rock Blasted (tons)	4,082		32	47	20			
	Explosives Used (lbs)	1,597	**Liberty Church - 3513 Oak Park Rd**	**0.163**	0.078	0.158	100.0	950	
				20	43	32			
#31	**December 4 (Friday)**								
	Electronic		Gas Pipeline	**0.108**	0.060	0.055	121.6	1,267	
				15	39	22			
			Mandt - 1191 Liberty Rd	**0.148**	0.068	0.113	109.5	1,267	
				14	47	30			
			Property Line - 3680 Oak Park Rd	0.068	0.048	**0.143**	112.0	2,270	
				10	26	17			
	Number of Holes	15	Harbort - 1225 Liberty Rd						**Received no data for 1225 Liberty Rd**
	Hole Depth (ft)	47							
	Holes per Delay (decks)	2	Frjelich - 1285 Olstad Rd	**0.128**	0.045	0.083	115.6	1,637	
	Rock Blasted (tons)	3,827		39	51	15			
	Explosives Used (lbs)	1,760	**Liberty Church - 3513 Oak Park Rd**	0.138	0.083	**0.173**	106.0	898	
				22	39	32			

Chapter SPS 307

EXPLOSIVES AND FIREWORKS

Note: Chapter Ind 5 as it existed on April 30, 1985 was repealed and a new chapter ILHR 7 was created effective May 1, 1985. Chapter ILHR 7 was renumbered ch. Comm 7 under s. 13.93 (2m) (b) 1., Stats., and corrections made under s. 13.93 (2m) (b) 6. and 7., Stats., Register, October, 1996, No. 490; CR 06–120: r. and recr. Comm. 7, Register February 2008 No. 626, eff. 3–1–08. Chapter Comm 7 was renumbered chapter SPS 307 under s. 13.92 (4) (b) 1., Stats., Register December 2011 No. 672.

Subchapter I — General Requirements

SPS 307.01 Purpose. (1) EXPLOSIVES. Pursuant to s. 101.15 (2) (e), Stats., the purpose of this chapter is to establish standards for the use of explosive materials.

(2) FIREWORKS. Pursuant to s. 167.10 (6m), Stats., the purpose of this chapter is to establish licensing procedures for the manufacture of fireworks.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08.

SPS 307.02 Scope. (1) EXPLOSIVES. The provisions of this chapter establish uniform limits on permissible levels of blasting resultants relating to the use of explosive materials.

Note: See ch. SPS 305 for rules pertaining to the licensing of blasters. See ch. SPS 314 for rules pertaining to general safety and fire prevention related to the storage, handling of explosive materials. See chs. SPS 361 to 366 for rules pertaining to the design and construction of buildings related to the storage of explosive materials.

(2) FIREWORKS. The provisions of this chapter establish licensing and inspection standards relating to the manufacture of fireworks.

Note: See s. 167.10, Stats., and ch. SPS 314 for requirements pertaining to the manufacture, sale, storage and handling of fireworks.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08.

SPS 307.03 Fees. Fees for safety inspections and petitions for variance shall be submitted as specified in ch. SPS 302.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08; correction made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 307.06 Petition for variance. The department shall consider and may grant a variance to a provision of this chapter in accordance with ch. SPS 303. The petition for variance shall include, where applicable, a position statement from the fire department having jurisdiction.

Note: Chapter SPS 303 requires the submittal of a petition for variance form (SBD–9890) and a fee, and that an equivalency is established in the petition for variance that meets the intent of the rule being petitioned. Chapter SPS 303 also requires the department to process regular petitions within 30 business days and priority petitions within 10 business days.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08; correction made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 307.10 Penalties. (1) EXPLOSIVES. Penalties for violation of any provision in this chapter relating to explosives shall be assessed in accordance with s. 101.02 (12) and (13), Stats.

Note: Section 101.02 (13) (a), Stats., indicates penalties will be assessed against any employer, employee, owner or other person who fails or refuses to perform any duty lawfully enjoined, within the time prescribed by the department, for which no penalty has been specifically provided, or who fails, neglects or refuses to comply with any lawful order made by the department, or any judgment or decree made by any court in connection with ss. 101.01 to 101.599, Stats. For each such violation, failure or refusal, such employee, owner or other person must forfeit and pay into the state treasury a sum not less than $10 nor more than $100 for each violation.

Note: Section 101.02 (12), Stats., indicates that every day during which any person, persons, corporation or any officer, agent or employee thereof, fails to observe and comply with an order of the department will constitute a separate and distinct violation of such order.

(2) FIREWORKS. Pursuant to s. 167.10 (9) (g), Stats., a person who violates any provision of this chapter relating to fireworks may be fined not more than $10,000 or imprisoned not more than 10 years or both.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08.

Subchapter II — Definitions and Standards

SPS 307.20 Definitions. In this chapter:

(1) "Airblast" means an airborne shock wave resulting from the detonation of explosives.

(2) "Barrier" means a material object that separates, keeps apart, or demarcates in a conspicuous manner such as cones, a warning sign, or tape.

(3) "Blast area" means the area of a blast within the influence of flying rock, missiles, gases, and concussion as determined by the blaster in charge.

(4) "Blast site" means the area where explosive material is handled during loading of blastholes, including 50 feet in all directions from the perimeter formed by the loaded holes. A minimum of 30 feet may replace the 50–foot requirement if the perimeter of loaded holes is marked and separated from non–blast site areas by a barrier. The 50–foot or 30–foot distance requirements, as applicable, apply in all directions along the full depth of the blasthole. In underground mines, at least 15 feet of a solid rib, pillar, or broken rock may be substituted for the 50 foot distance.

(5) "Blaster" means any individual holding a valid blaster's license issued by the department.

(6) "Blaster in charge" means that qualified person in charge of, and responsible for, the loading and firing of a blast.

(7) "Blasting" means any method of loosening, moving or shattering masses of solid matter by use of an explosive.

(8) "Blasting operation" means any operation, enterprise or activity involving the use of blasting.

(9) "Blasting resultants" means the physical manifestations of forces released by blasting, including but not limited to projectile matter, vibration and concussion, which might cause injury, damage or unreasonable annoyance to persons or property located outside the controlled blasting site area.

(10) "Controlled blasting site area" means the area that surrounds a blast site and that meets one of the following conditions:

(a) Is owned by the operator.

(b) With respect to which, because of property ownership, an employment relationship or an agreement with the property owner, the operator can take reasonably adequate measures to exclude or to assure the safety of persons and property.

(11) "Department" means the department of safety and professional services.

(12) "Explosive" means any chemical compound, mixture or device, the primary or common purpose of which is to function by explosion unless the compound, mixture or device is otherwise classified by the department by rule.

(13) "Explosive materials" means explosives, blasting agents and detonators. The term includes, but is not limited to, dynamite and other high explosives, slurries, emulsions, water gels, blasting agents, black powder, pellet powder, initiating explosives, detonators, safety fuses, squibs, detonating cord, igniter cord and igniters.

(14) "Fireworks" has the meaning given in s. 167.10 (1) (intro.), Stats., and includes a device listed under s. 167.10 (1) (e), (f) or (i) to (n), Stats.

Note: Section 167.10 (6m) (a), Stats., states that a person must have a fireworks manufacturing license in order to manufacture fireworks or a device listed under s. 167.10 (1) (e), (f) or (i) to (n), Stats.

Note: Under s. 167.10 (1) (intro.), Stats., "fireworks" means anything manufactured, processed or packaged for exploding, emitting sparks or combustion which does not have another common use. Section 167.10 (1) (e), (f) and (i) to (n), Stats., reads as follows:

Section 167.10 (1) (e) A cap containing not more than one–quarter grain of explosive mixture, if the cap is used or possessed or sold for use in a device which prevents direct bodily contact with a cap when it is in place for explosion.

(f) A toy snake which contains no mercury.

(i) A sparkler on a wire or wood stick not exceeding 36 inches in length that is designed to produce audible or visible effects or to produce audible and visible effects.

(j) A device designed to spray out paper confetti or streamers and which contains less than one–quarter grain of explosive mixture.

(k) A fuseless device that is designed to produce audible or visible effects or audible and visible effects, and that contains less than one–quarter grain of explosive mixture.

(L) A device that is designed primarily to burn pyrotechnic smoke–producing mixtures, at a controlled rate, and that produces audible or visible effects, or audible and visible effects.

(m) A cylindrical fountain that consists of one or more tubes and that is classified by the federal department of transportation as a Division 1.4 explosive, as defined in 49 CFR 173.50.

(n) A cone fountain that is classified by the federal department of transportation as a Division 1.4 explosive, as defined in 49 CFR 173.50.

(15) "Flyrock" means rock that is propelled through the air from a blast.

(16) "Ground vibration" means a shaking of the ground caused by the elastic wave emanating from a blast.

(17) "Inhabited building" means a building regularly occupied in whole or in part as a habitation for human beings, or any church, schoolhouse, railroad station, store or other structure where people are accustomed to assemble, except any building or structure occupied in connection with the manufacture, transportation, storage or use of explosive materials.

(18) "Operator" means the person who is responsible for the operation at a mine, pit, quarry, or construction site where blasting activity occurs.

(19) "Particle velocity" means any measure of ground vibration describing the velocity at which a particle of ground vibrates when excited by a seismic wave.

(20) "Person" means any individual, corporation, company, association, firm, partnership, society or joint stock company.

(21) "Unreasonable annoyance" means an excessive, repeated noise, action or other disturbance that is not justified by reason.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08; correction in (11) made under s. 13.92 (4) (b) 6., Stats., Register December 2011 No. 672.

SPS 307.21 Adoption of standards. NFPA 495, Explosive Materials Code, 2006, subject to the modifications specified in this chapter, is hereby incorporated by reference into this chapter.

Note: A copy of NFPA 495, Explosive Materials Code is on file in the offices of the department and the legislative reference bureau. Copies of NFPA 495, Explosive Materials Code may be purchased from the National Fire Protection Association, 1 Batterymarch Park, Box 9101, Quincy, MA, 02269–9101.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08.

Subchapter III — Use of Blasting Materials

SPS 307.30 General. The use of explosive materials for blasting shall be executed in accordance with NFPA 495 chapter 10.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08.

SPS 307.31 Changes, additions or omissions to NFPA 495. (1) Changes, additions or omissions to NFPA 495 chapter 10 are specified in this subchapter and are rules of the department and are not requirements of the NFPA 495 standard.

(2) These are department rules in addition to the requirements in NFPA 495 section 10.1.3:

(a) *Blaster requirements.* When blasting operations are conducted in communities, the shots shall be designed and initiated by a properly licensed Class 5, 6 or 7 blaster.

Note: See ch. SPS 305 for blaster license requirements and classifications.

(b) *Notifications.* Any person conducting blasting operations in a community shall notify the department, the local fire department and the local law enforcement agency of the date and location of the blasting operation. Notification to the department shall be made on forms provided by the department.

Note: Copies of the notice of blasting in a community (form SBD–7336) are available from the Division of Industry Services at P.O. Box 2658, Madison, WI 53701–2658; or at telephone (608) 261–8500 or (877) 617–1565 or 411 (Telecommunications Relay); or at the Division's Web site at http://dsps.wi.gov/programs/industry–services.

(3) These are department rules in addition to the requirements in NFPA 495 section 10.2:

(a) Explosive materials used in underground blasting shall be fume class 1; however, fume class 2 and fume class 3 may be used if adequate ventilation has been provided as determined by the blaster in charge.

Note: Fume class 1 explosives produce less than 0.16 cubic feet of poisonous gases per 1–1/4 x 8" cartridge when detonated in the Bichel Gauge.

(b) All blast holes in open work shall be stemmed to the collar or to a point which will confine the charge.

(4) These are department rules in addition to the requirements in NFPA 495 chapter 10:

(a) *Required log.* A blasting log shall be required for each blast fired.

(b) *Filing and availability.* All blasting logs shall be kept on file by the blaster for a minimum period of 3 years, and shall be made available to the department upon request.

(c) *Information.* Each blasting log shall contain at least all of the following information:

1. Name, signature and license number of the blaster in charge of the blast.
2. Specific blast location, including address, bench and station number if applicable.
3. Type of blasting operation.
4. Date and time of the blast.
5. Weather conditions at the time of the blast.
6. Diagram of the blast layout and the delay pattern.
7. Number of holes.
8. Hole depth and diameter.
9. Spacing.
10. Burden.
11. Maximum holes per delay.
12. Maximum pounds of explosives per delay.
13. Depth of top stemming used.
14. Number, type and length of stemming used between decks.
15. Total pounds and type of explosives used.

16. Distance to nearest inhabited building not owned by the operator.

17. Type of initiation used.

18. Seismographic and airblast records, which shall include all of the following:

a. Type of instrument and last laboratory calibration date.

b. Exact location of instrument and the date, time, and distance from the blast.

c. Name of the person and firm taking the reading.

d. Trigger levels for ground and air vibrations.

e. The vibration and airblast levels recorded.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08.

Subchapter IV — Blasting Resultants

SPS 307.40 Regulation of blasting resultants. Pursuant to s. 101.15 (2) (e), Stats., the purpose of this subchapter is to provide for the establishment of uniform limits on permissible levels of blasting resultants to reasonably assure that blasting resultants do not cause injury, damage or unreasonable annoyance to persons or property outside any controlled blasting site area.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08.

SPS 307.41 Preblasting notification. (1) PREBLASTING SURVEY. At least 24 hours prior to initial blasting at a blast site, the blaster in charge shall make a reasonable effort to notify in writing or verbally all residents or owners of affected dwellings or other structures, as determined under sub. (2), that a blasting operation is to begin. The blaster in charge shall offer to perform a preblasting survey for the residents or owners. If a resident or owner requests a copy of the preblasting survey, the blaster in charge shall provide a copy for not more than the actual cost of the copy within 48 hours of the request.

Note: A preblasting survey provides a baseline record of the pre–existing condition of a structure against which the effects of blasting can be assessed, and it should include the interior and exterior of the buildings.

(2) AFFECTED BUILDINGS. Affected dwellings or other structures shall be determined based on the scaled–distance equation, $W = (D/Ds)^2$. Using a scaled–distance factor Ds of 55, affected dwellings or other structures shall be those located within the distance D of the controlled blasting site area for the weight per delay W of explosives to be used.

Note: An example calculation to determine D is as follows: For 4 pounds of explosives, $D = Ds(W)^{1/2} = 55\ (4)^{1/2} = 110$ feet.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08.

SPS 307.42 Blasting schedules. All surface blasting shall be conducted between sunrise and sunset, unless one of the following conditions applies:

(1) More restrictive time periods are specified by the department.

(2) The blasting is approved by the department based on a showing by the operator that the public will not be adversely affected by noise and other impacts.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08.

SPS 307.43 Instrumentation. All seismographs used to determine compliance with this subchapter shall meet the following minimum specifications:

(1) Seismic frequency range: 2 to 200 Hz (±3 Hz).

(2) Acoustic frequency range: 2 to 200 Hz (±1 Hz).

Note: Due to an error in CR 06–120, dB was changed to Hz in sub. (2).

(3) Velocity range: 0.02 to 4.0 inches/second.

(4) Sound range: 110 to 140 dB linear.

(5) Transducers: Three mutually perpendicular axes.

(6) Recording: Provide time–history of waveform.

(7) Calibration: Be laboratory calibrated as often as necessary, but at least once every 12 months according to manufacturer's recommendations.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08.

SPS 307.44 Control of adverse effects. (1) GENERAL REQUIREMENTS. Blasting shall be conducted so as to prevent injury and unreasonable annoyance to persons and damage to public or private property outside the controlled blasting site area.

(2) FLYROCK. Flyrock traveling in the air or along the ground shall meet all of the following conditions:

(a) Remain within the controlled blasting site area.

(b) Not be cast more than one–half the distance to the nearest inhabited building within or outside of the controlled blasting site area.

(3) AIRBLAST. (a) An airblast may not exceed 133 peak dB at the location of any dwelling, public building or place of employment outside the controlled blasting site area.

(b) The blaster shall conduct monitoring of every blast to determine compliance with the airblast limit. The measuring system used shall have a lower–end flat frequency response of not more than 2 Hz and an upper–end flat frequency response of at least 200 Hz.

(4) GROUND VIBRATION. (a) 1. The maximum ground vibration at the location of any dwelling, public building or place of employment outside the controlled blasting site area shall be established in accordance with the blasting–level chart of par. (b).

2. All structures in the vicinity of the controlled blasting site area, not listed in subd. 1., such as water towers, pipelines and other utilities, tunnels, dams, impoundments and underground mines, shall be protected from damage by establishment by the blaster of a maximum allowable limit on the ground vibration. The blaster shall establish the limit after consulting with the owner of the structure.

(b) The blaster shall use the ground vibration limits specified in Figure 7.44 to determine the maximum allowable ground vibration. Ground vibration shall be measured as the particle velocity. Particle velocity shall be recorded in 3 mutually perpendicular directions.

(c) The blaster shall make and keep a seismograph record including both particle velocity and vibration frequency levels for each blast. The method of analysis shall be subject to discretionary review by the department.

(d) For quarry operations, the blaster shall report any ground vibration levels to the department that are above 0.75 inch per second with frequencies less than 40 Hz.

Note: Local municipalities may have more restrictive regulations than the department.

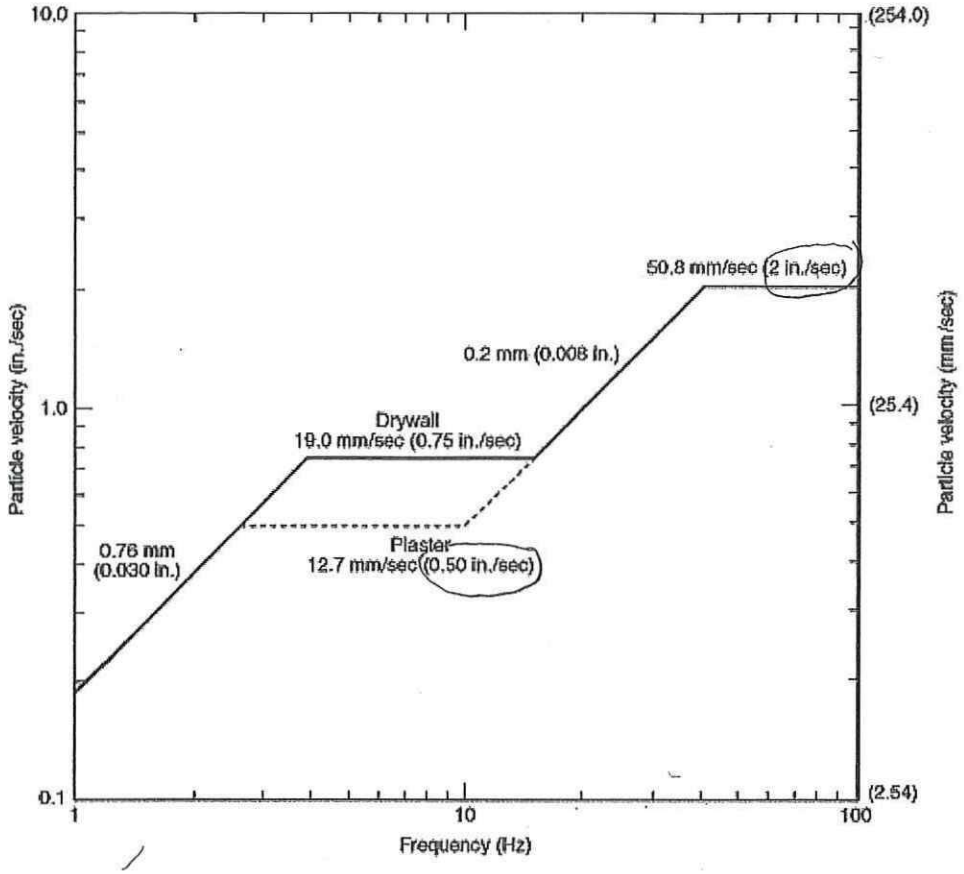


Figure 7.44 – Blasting Level Chart
History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08.

Subchapter V — Fireworks

SPS 307.50 Licensing of fireworks manufacturers. **(1)** LICENSE REQUIRED. No person may manufacture fireworks unless that person holds a license issued by the department in accordance with ch. SPS 305.

(2) POSTING. A fireworks manufacturer license shall be posted at each plant where fireworks are to be manufactured.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 307.51 Inspections. (1) GENERAL. The authorized inspectors of the department may enter and inspect at reasonable times the premises on which each person licensed under this chapter manufactures fireworks.

(2) INITIAL INSPECTIONS. Upon receipt of an application for a fireworks manufacturing license, the department or the department's designated deputy shall inspect the premises for which the application is made.

(3) PERIODIC INSPECTIONS. The department or the department's designated deputy shall inspect a fireworks manufacturing plant at least once a year.

(4) FEDERAL INSPECTION ACCEPTANCE. Where an inspection of a fireworks manufacturing plant has been conducted by the federal bureau of alcohol, tobacco, firearms and explosives, the department may accept a federal inspection report in lieu of the department inspection.

History: CR 06–120: cr. Register February 2008 No. 626, eff. 3–1–08.

January 14, 2019

To whom it may concern,

We built our home at 1285 Olstad Road in the summer and fall of 2009 with occupancy on 12/18/2009. We had purchased the then vacant land in June, 2008. At that time, there was no activity at the Oak Park quarry or during the time that we were building. In fact, the last CUP with Amon & Son ended April, 2007. The new and present CUP was not approved until March, 2009. New operations did not begin under present ownership until November, 2010. Between 12/09 and the summer of 2015 (6 years), we noted no cracks in our thin coat plaster anywhere in our home. Frequent and intense blasting occurred in the summers of 2014 and 2015 at the quarry. We first noted cracks in 2015, all on the east side of our home which is about 600 feet from the quarry. We started taking pictures of these cracks March 1, 2016.

When we learned that the quarry was not going to apply for a blasting permit in 2016, we began to repair and repaint the rooms with these cracks the winter of 2016. (Some repairs still remain). We took new pictures of these repairs 12/13/2018. The repairs are in good condition and there are no new cracks anywhere in our home. We believe that the cracks were the result of blasting and that no new damage has occurred because there has been no blasting in the last 3 years.

Attached are the pictures of cracks and the repairs. MKF 9 and MKF 10.

We attest that the information in these 3 pages (MKF 8,9,10) is correct to the best of our knowledge.

Mallory Frjelich

Mallory Frjelich 1/14/19

Kenneth Frjelich

Kenneth Frjelich 1/14/19

1285 Olstad Road Deerfield, Wisconsin 53531

1-14 2019

STATE OF WI COUNTY OF Dane

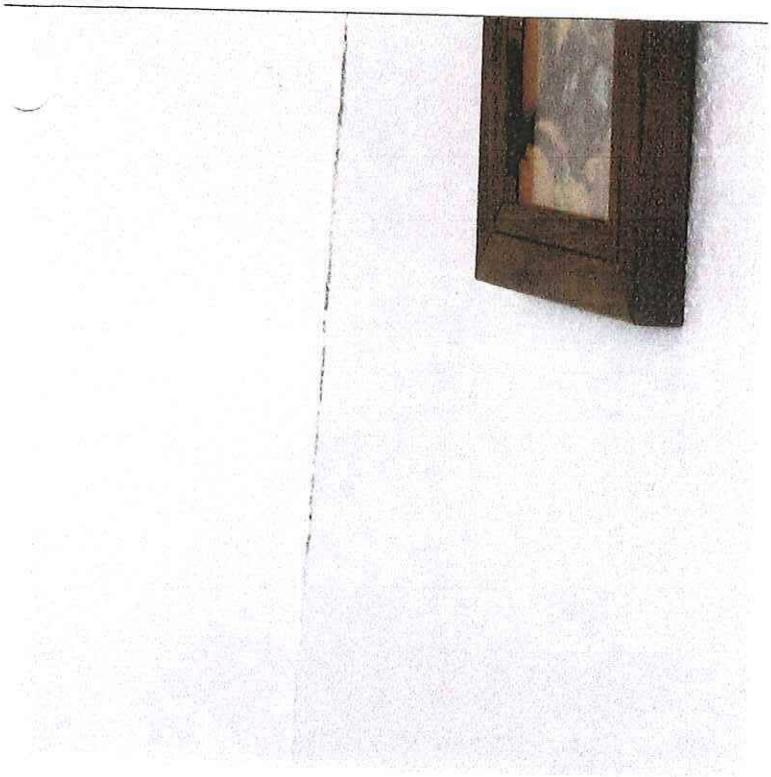
Subscribed and sworn to before me this 14 day of January 2019

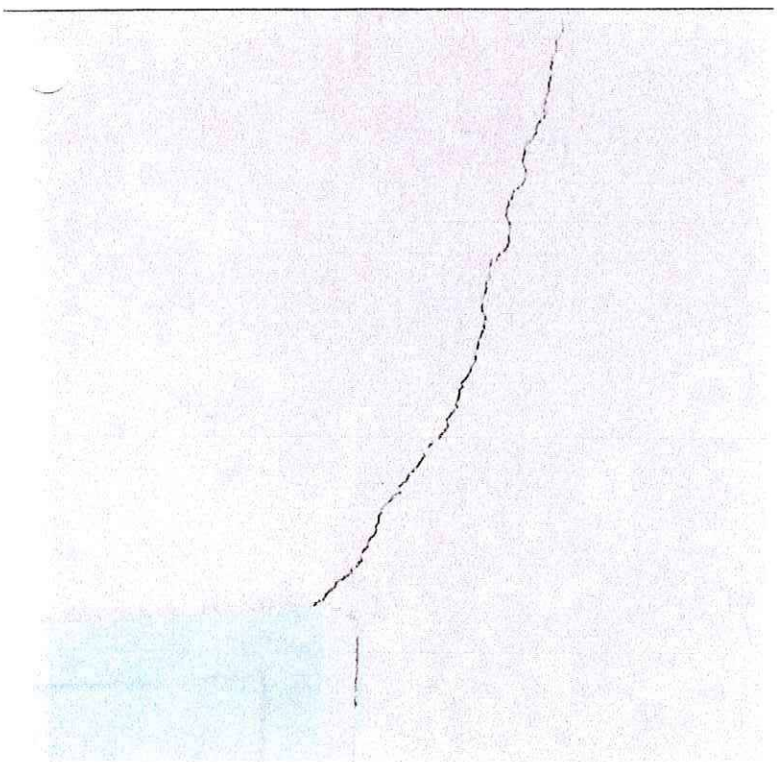
Patricia A. Winkler

Notary Public Dane Co. My Commission expires 8-22 2020

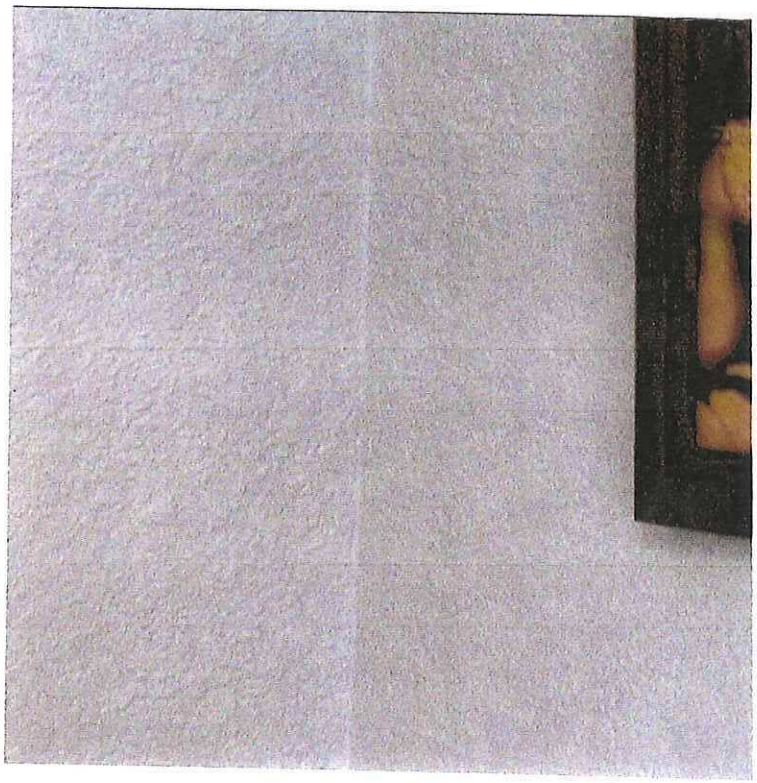
MKF 8

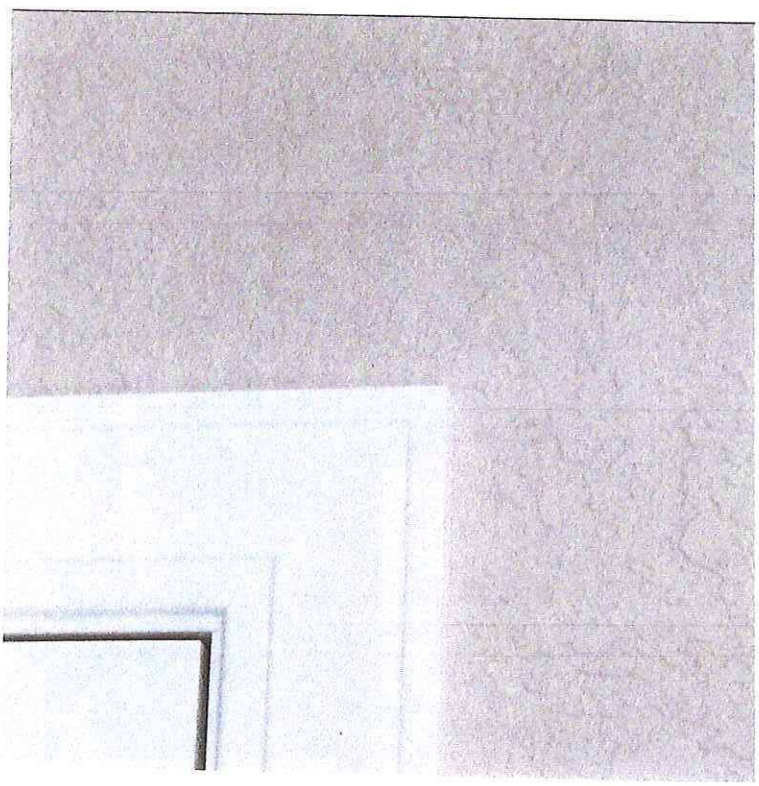
PHOTOS OF CRACKS TAKEN ON MARCH 4, 2016



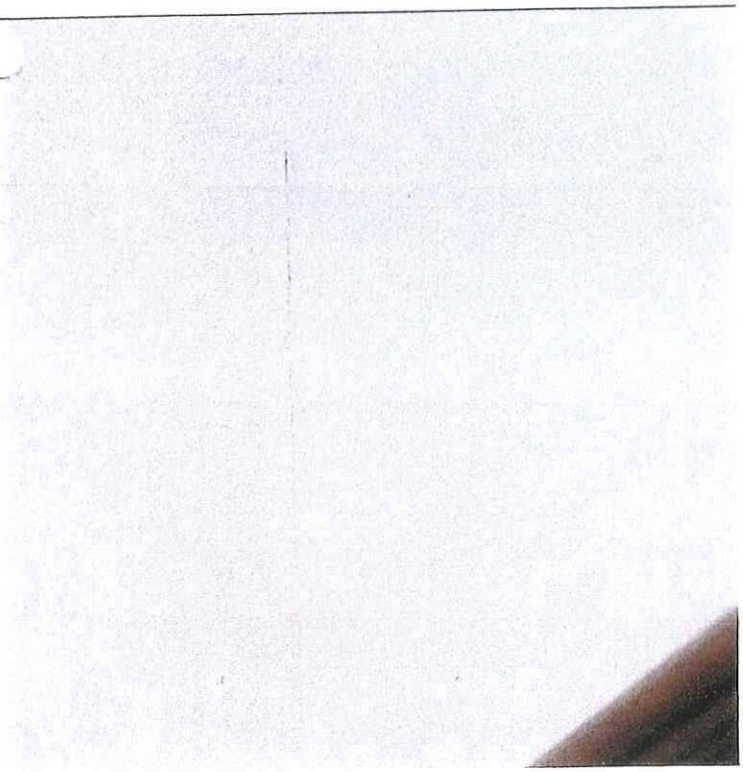


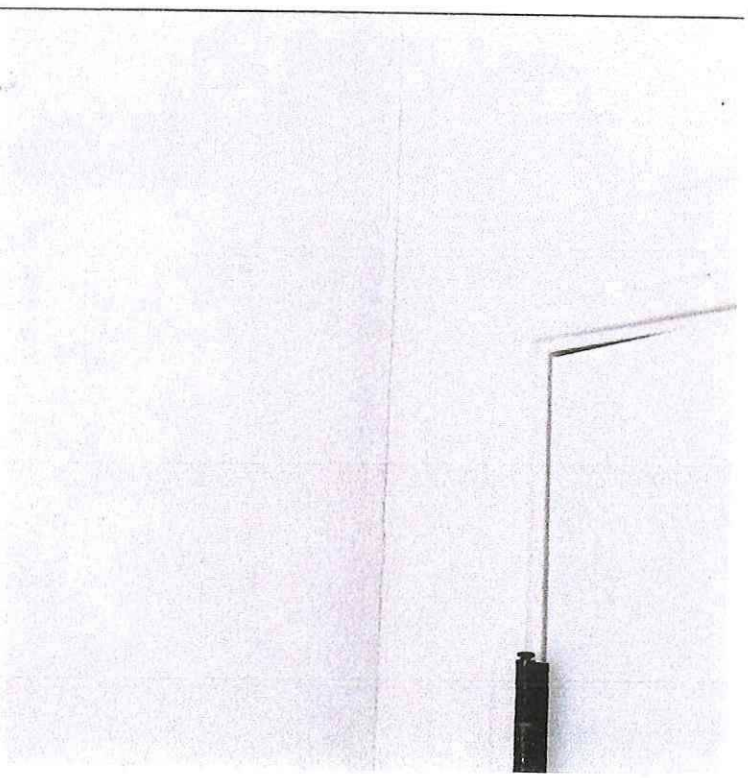
PHOTOS TAKEN OF REPAIRS ON DECEMBER 13, 2018



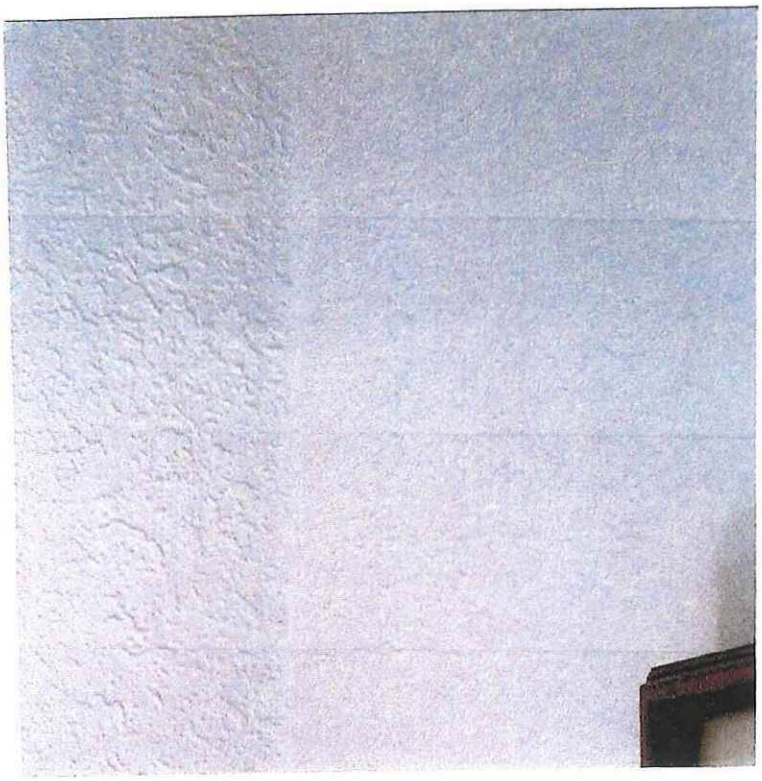


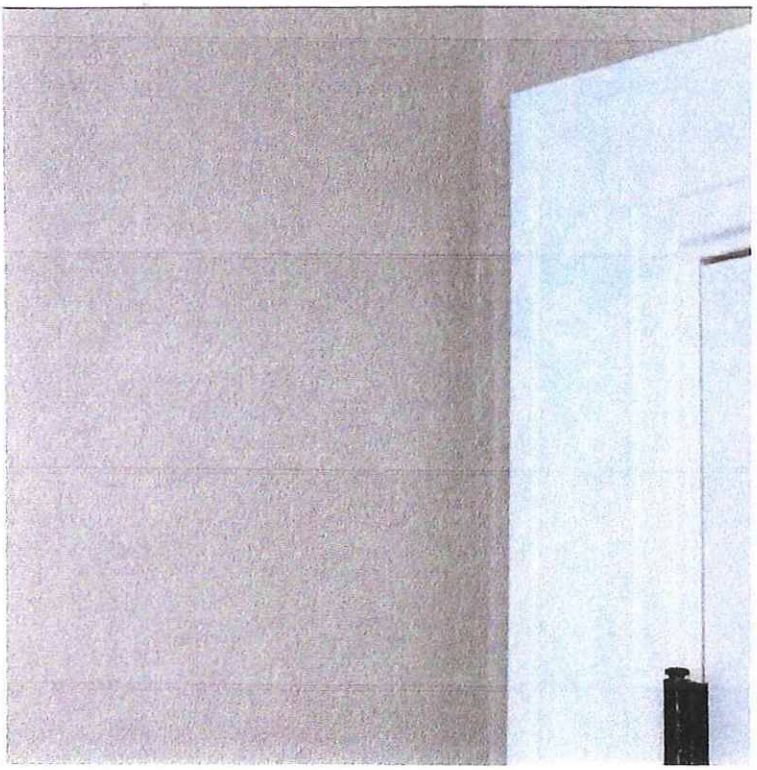
PHOTOS OF CRACKS TAKEN ON MARCH 1, 2016





PHOTOS OF REPAIRS TAKEN ON DECEMBER 13, 2018





n and Dolores Mandt sold their 170 acre Home Farm and quarry to Jon Halverson in 2010. The farm house is located
Oak Park road, about 500 ft. from the St.Paul Liberty Lutheran church.

STATEMENT OF DOLORES MANDT

I, Dolores Mandt, make this statement of my own free will and will testify to the same if called to testify in court. My husband and I owned approximately 170 acres in the Township of Deerfield and sold it to Jon Halverson in October 2010. After the sale, Jon started blasting in the limerock pit on the property. For the first time in my memory, we experienced trembling of our farm house and dishes rattling in the cabinets. The house was built in the 1950s and we had been living there together since 1967. This vibration and dish rattling was unusual because over the years, we had different companies lease the pit, but never did we have that experience.

At the time Jon was blasting, I was utilizing the southwest bedroom in my farmhouse for an office. Soon I noticed the interior wall had a crack at the top of the wall where it met the ceiling. I brought this to Jon's attention. He brushed it off as caused by the house settling. I then informed him that since the house was built in the early 1950's and that the house was sitting on a table of limerock, settling was hardly the reason for the crack. He did not offer to do anything for me.

Signed this 10th day of January, 2019

Dolores M. Mandt

Dolores Mandt

Dolores Mandt personally appeared before me

On January 10, 2019.

Karen L. Riemer

Karen L. Riemer

Notary Public, State of Wisconsin

My commission is permanent

My property and home is on the North border of the land & Quarry site. I have lived here since 1974.

When the blasting occurs I receive alot of shaking of my home. The dishes rattle in the cupboards, my ceiling fan rattles & sways - the house literally cracks. I have new cracks in my foundation that were not there prior to blasting. Some blasts so bad scared me & the Grandchildren! I am also concerned for my well.

Karen Harbort
1225 Liberty Rd.
Deerfield, Wi.
53531

Personally appeared before me this 2nd day of January 2019, Karen Harbort.

CARRI A. BOHN
NOTARY
PUBLIC
STATE OF WISCONSIN

Carri A. Bohn
Notary Public
Dane Co, Wisconsin
Commission Expires 9-11-2020

Ms. Karen Harbort
1225 Liberty Road

Photo #1 – Cracks in the foundation of the garage along the south wall

Photo from Pre-blast Survey in 2014

The garage foundation was not cracked before Halverson took over the quarry.

Ms. Karen Harbort
1225 Liberty Road

Photo #2 – Cracks in the foundation of the garage along the south wall

Photo from Pre-blast Survey in 2014

The garage foundation was not cracked before Halverson took over the quarry.

Ms. Karen Harbort
1225 Liberty Road

Photo #3 – Cracks in the foundation of the garage along the south wall

Photo from Pre-blast Survey in 2014

The garage foundation was not cracked before Halverson took over the quarry.

Ms. Karen Harbort
1225 Liberty Road

Photo #4 – Cracks in the foundation of the garage along the south wall

Photo from Pre-blast Survey in 2014

The garage foundation was not cracked before Halverson took over the quarry.