

**AGENDA  
DRAINAGE DISTRICT 34  
LANDOWNER MEETING  
February 12, 2020 10:00 AM**

1. Open Meeting
2. Approve Agenda
3. Introductions/Attendance
4. Explanation Of Repair Summary

Documents:

[DD34 WO189 REPAIR SUMMARY 2\\_11\\_20.PDF](#)

5. Comments/Discussion
6. Possible Action
7. Other Business
8. Adjourn Meeting



# Drainage Work Order Request For Repair

## Hardin County

Date 6/30/2017 Project # \_\_\_\_\_ Work Order # 189  
District # 34 Lateral Open Ditch Fund # 51058  
Township Concord Section 20 Twp 86 Rge 22 Qtr Sec SW1/4

Repair Requested By Craig Johnson  
Address GIS 862220300005 Phone (515) 290-9706

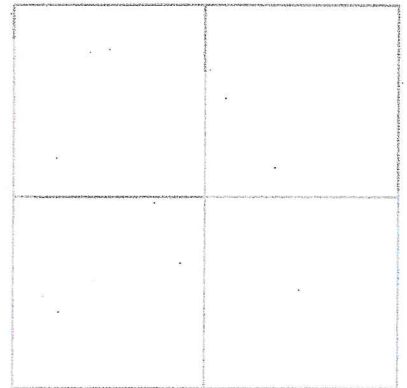
Landowner same  
Address \_\_\_\_\_ Phone \_\_\_\_\_

Request Taken By Tina Schlemme

Available for Repair Now?  Yes  No Date Available \_\_\_\_\_

Problem Description Blowout on Main 21" tile just north and west of ditch. There is also a wet area on the east side of the ditch, 1/2 way. (Can access area by windmill road and down waterway.)

*7-11-17 Per Tina → Add'l blowouts in same area.*



Repair labor, materials and equipment \_\_\_\_\_

Potential Wetlands?  Yes-Repair existing tile only  No-Repair and maintain tile

Repaired By: \_\_\_\_\_

Date: \_\_\_\_\_

Please send statement for services to:

Hardin County Auditor's Office

Attn: Tina Schlemme

1215 Edgington Ave, Suite 1

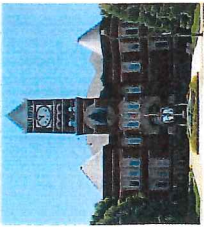
Eldora, IA 50627

Phone (641) 939-8111

Fax (641) 939-8245

For Office Use Only

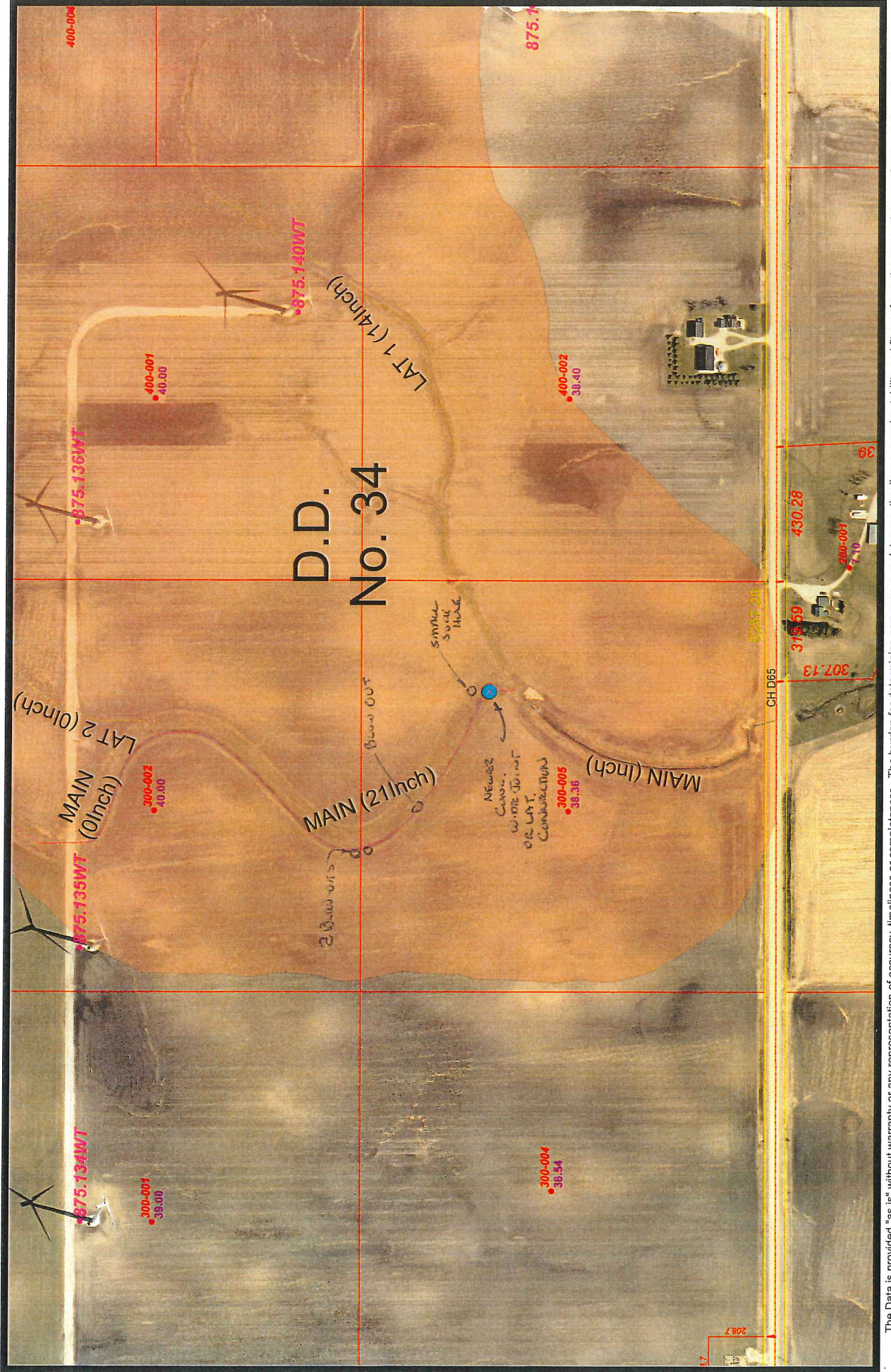
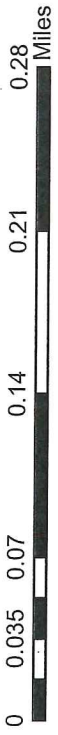
Approved: \_\_\_\_\_ Date: \_\_\_\_\_



# Hardin County Auditor's Office



Date: 6/30/2017



The Data is provided "as is" without warranty or any representation of accuracy, timeliness or completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for the appropriateness for use rests solely on the requester. Hardin County makes no warranties, express or implied is to the use of the Data. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts the limitations of the Data, including the fact that the Data is dynamic and is in a constant state of maintenance, correction and update. Cadastral Data represents land ownership, but does not define it. This Data does not replace a legal survey.

## Drainage District:

#34

### Investigation/Repair Summary:

- Landowner in the SE¼ SW¼ of Section 20, Township 86 North, Range 22 West reported multiple blowouts/sinkholes above the assumed original and supplemental Main tile routes in the area immediately upstream of the Main open ditch.
- Visual observation found multiple sinkholes/blowouts along the original and supplemental Main tiles. Some are due to wide joints and another due to a collapsed private lateral.
- Excavation of the two northernmost sinkholes/blowouts found the supplemental 24-inch concrete Main tile collapsed and two wide joints nearby. Excavations of the other two sinkholes (to the south) revealed multiple wide joints between sections of the supplemental 36-inch concrete main tile and original 24-inch VCP Main tile, as well as broken private tile near its juncture with the Main tiles.
- The stretch of collapsed 24-inch supplemental Main tile was repaired with rock bedding and backfill, dual wall HDPE tile, and concrete collars. Wide joints were repaired with engineering fabric and partial concrete collars.
- Private laterals were repaired due to damage/removal while completing other repairs to the Main tile. Private laterals that were 6-inches were repaired with dual wall HDPE tile and 5-inch laterals were repaired with single wall HDPE tile. HDPE was attached to existing private tiles and the Main tile with factory couplers.
- After repairs were completed, excavations were backfilled with on-site soil and one additional load of imported soil.

### Contractor Time and Materials (spent while CGA was on-site):

See attached Tabulated Contractor Time and Materials Sheet.

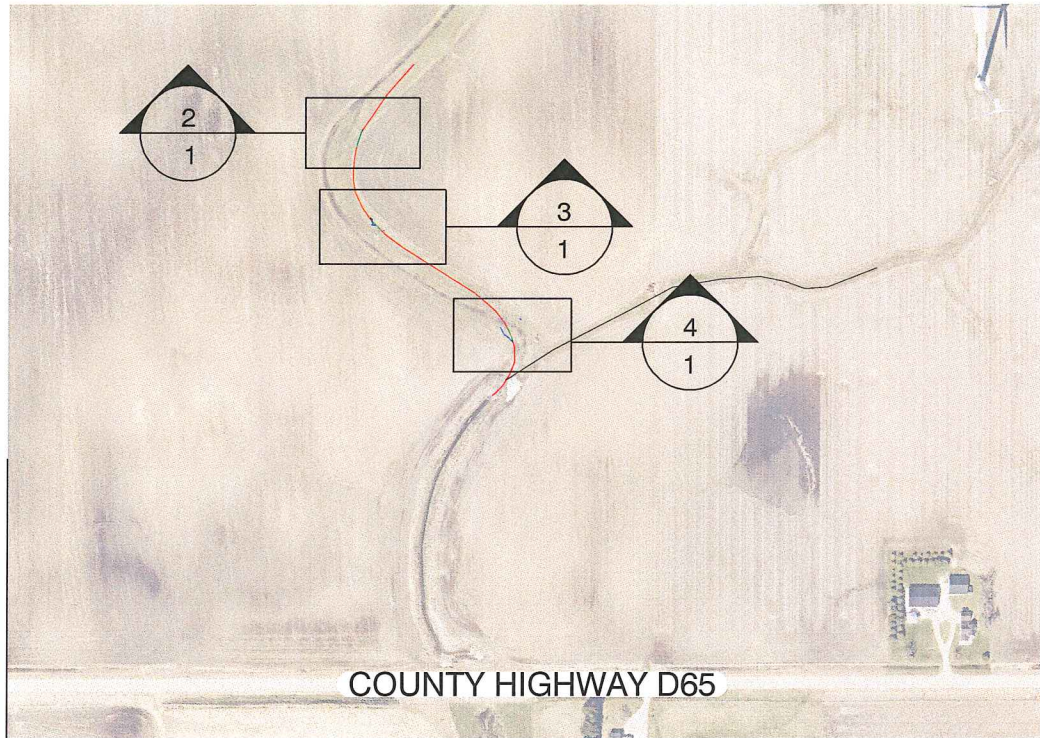
### Additional Actions Recommended:

After leaving the site, it wasn't clear if final grading of soil and seeding had been completed. This should be verified with the contractor. Also, as previously reported, wide joints are a systematic problem on the Supplemental Main tile. CGA recommends the District Trustees evaluate if they want to pursue a large scale fix or continue with repairs on an as needed basis.

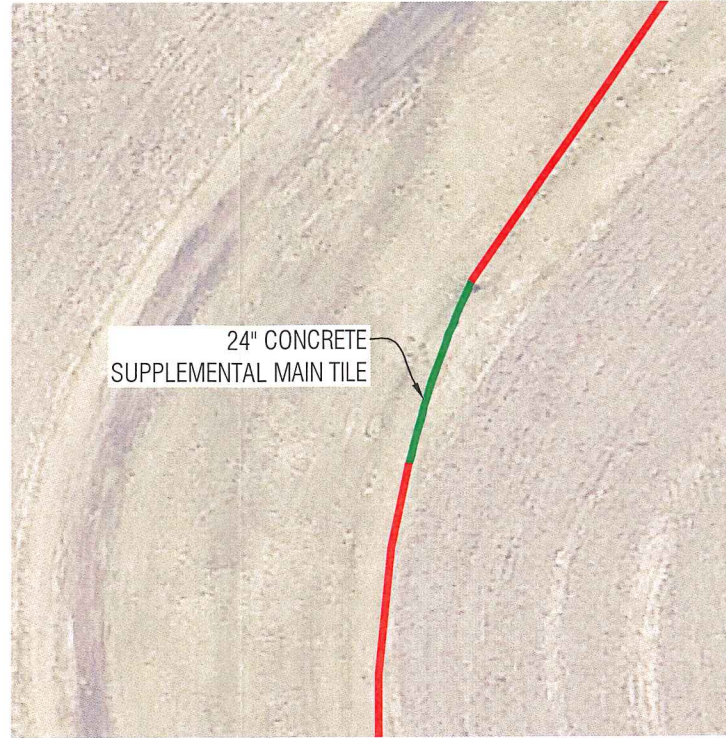


## Tabulated Contractor Time and Materials

Date	Totals	8/13/2019	8/14/2019	8/15/2018
Workman (hrs)	25	7.5	14.5	3
Excavator (hrs)	12.5	3.8	7.25	1.5
24" Dual Wall HDPE (ft)	33		33	
6" Dual Wall HDPE (ft)	71		40	31
5" Single Wall HDPE (ft)	49.5		49.5	
5" x 5" x 5" Wye (ea.)	1		1	
5"x6" Reducer (ea.)	1		1	
Factory coupler (ea.)	5		4	1
Concrete Collar (ea.)	14		14	

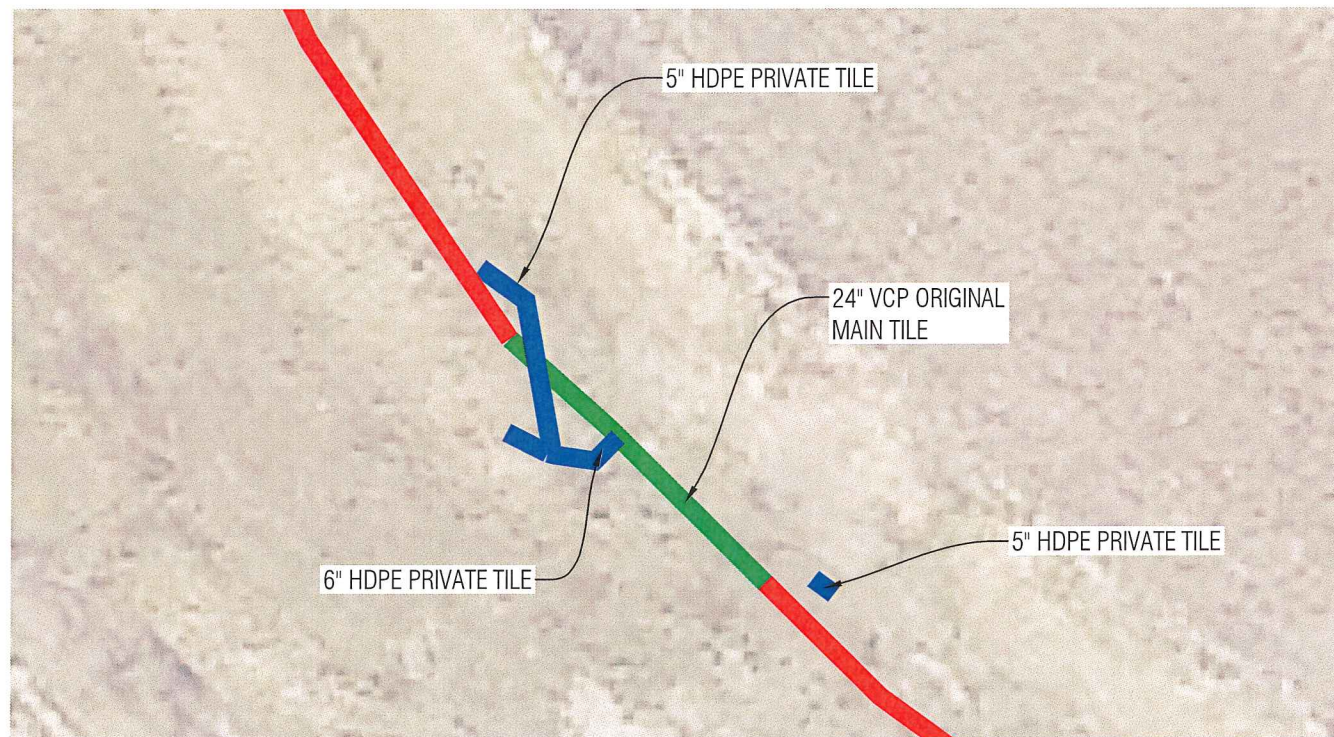


**1 PLANVIEW**  
Scale: 1"=500'

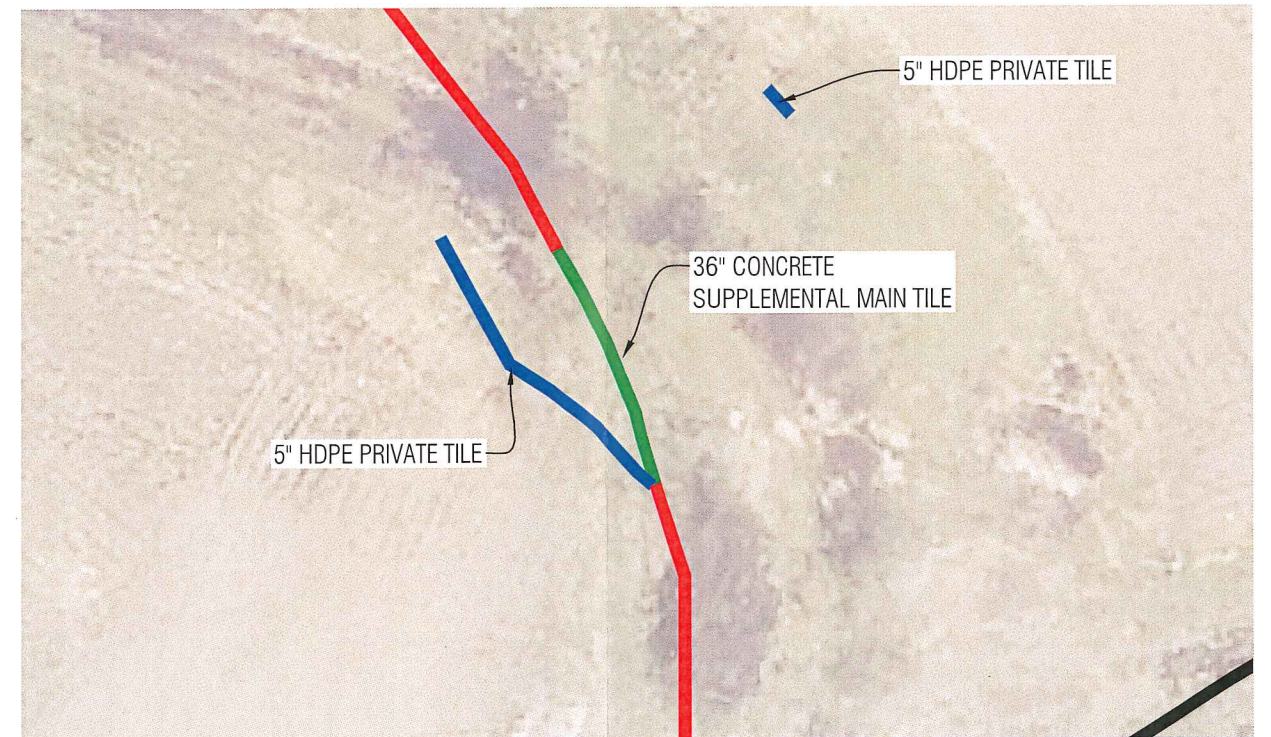


**2 DETAIL VIEW**  
Scale: 1"=50'

- MAIN TILE (GPS LOCATE)
- MAIN TILE (APPROXIMATE)
- PRIVATE TILE (GPS LOCATE)
- LATERAL 1 TILE (APPROXIMATE)



**3 DETAIL VIEW**  
Scale: 1"=50'



**4 DETAIL VIEW**  
Scale: 1"=50'

\\CGA-ACR-SRV1\2019\Map-projects\6428.1\CGA\DD\Drawings\Map - Layout1.CGA Plot - 09-19-19 - 4:06pm - JVS333

NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE



DESIGNED: JVS DATE: 9/19/2019  
 DRAWN: JVS DATE: 9/19/2019  
 CHECKED: LOG DATE: 9/23/2019  
 APPROVED: LOG DATE: 9/23/2019

**D.D. 34 REPAIR MAP**  
HARDIN COUNTY, IOWA

PLANVIEW

PROJECT NO. 6428.1  
SHEET NO. 1 OF 1

CONSTRUCTION ENGINEERING  
OBSERVATION REPORT

DATE:

7/19/17

PROJECT NUMBER:

6428.1

DAYS OF WEEK:

S M T W T F S

COUNTY, ROUTE, ROAD:

0034

SHEET NO.

OF

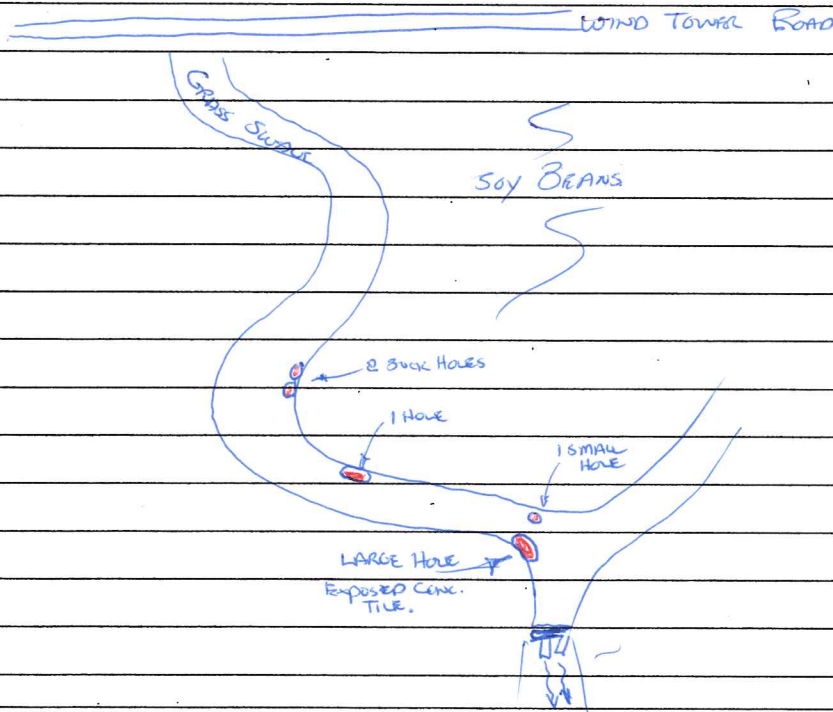
LOCATION:

NEW OUTLET TO NORTH, HAROLD CO.

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

Sunny, 95°, Humid, 110° Heat Index, Dry Conditions

ARRIVED @ JOB SITE NORTH OF NEW OUTLET IN SW 1/4, SEC 20-86-22 HAROLD CO.  
DROVE IN ON WIND TOWER ROAD, THEN S. DOWN GRASS SWALE ON THE MAIN ROAD.  
FOUND 2 SMALL SUCK HOLES @ CURVE IN SWALE, A BIGGER SUCK HOLE FURTHER  
DOWN SWALE AND A LARGE HOLE @ NEWER CONC. TIE JUST N. OF OUTLET OF MAIN ROAD.  
ALSO A VERY SMALL SUCK HOLE NORTH OF THE LARGE ONE. ALL HOLES ARE  
MARKED WITH MULTIPLE FLAGS. 5 HOLES ~~MARKED~~, TOTAL.  
TIE WATER IS VERY LOW, 2"±



I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

*[Handwritten Signature]*

Date Prepared:

7/19/17

Reviewed by:

Engineer

Date Reviewed

7/19/17 DD34 2 Sink Holes @ Curve





7/19/17 DP34 SMALL SWIRL HOLE



7/19/17 PD34 CONC EXPOSED TUE



7/19/17 0034 CONC. TUBE EXPOSED



7/19/17 DD34 SMALL SINK HOLE, CLAY TILE?



7/19/17 0034 ABOVE OUTLET



7/19/17 DD34 DOWNSTREAM



7/19/17

DD 34 OUTLET



CONSTRUCTION ENGINEERING  
OBSERVATION REPORT

DATE: 07/27/2017

PROJECT NUMBER: 6428.1 WD #189  
 COUNTY, ROUTE, ROAD: DD 34  
 LOCATION: NEW OUTLET TO NORTH, HARDIN CO.

DAYS OF WEEK: S M T W T F S  
 SHEET NO. 1 OF 3  
UPPER 60'S TO LOWER 80'S, SUNNY & BREEZY

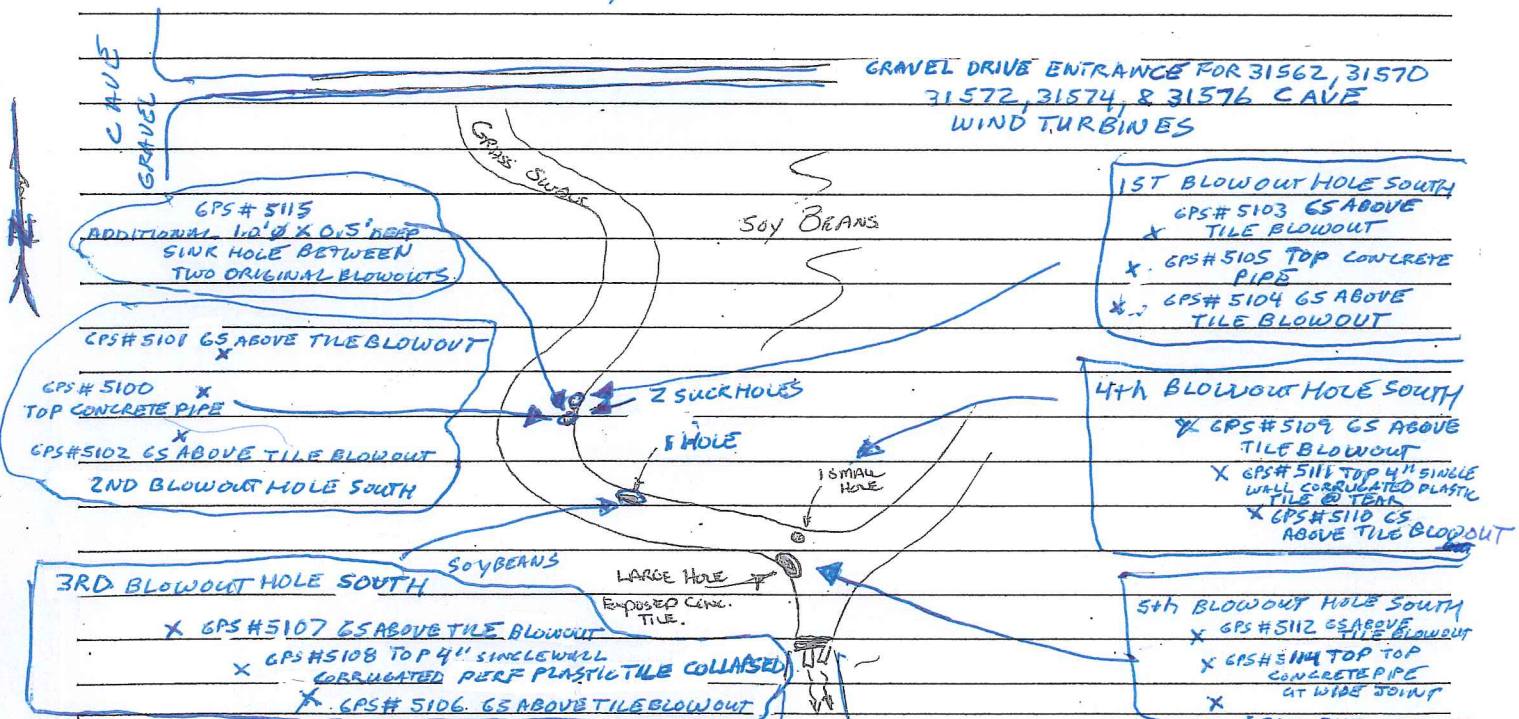
JOB# 6428 DD34

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

9:40 A.M. ARRIVED @ WHERE DRAINAGE DITCH CROSSES CO HWY D-65. IN SW 1/4 20-86-22 HARDIN COUNTY & FOUND <sup>(GPS #4)</sup> 5/8"  $\phi$  IRON REBAR FLUSH WITH GROUND 12.0'  $\pm$  NORTH OF NORTH A.C.G. EDGE OF CO HWY D65 E-W ON FORESLOPE OF DITCH 41.8'  $\pm$  WEST OF TOP CENTER OF WEST 6.0'  $\phi$  CMP INLET UNDER CO HWY D-65 @ DRAINAGE DITCH OR 82.0'  $\pm$  EAST OF  $\phi$  1ST FIELD ENTRANCE SOUTH OF CO HWY D-65 WEST OF DRAINAGE DITCH.

10:10 A.M. CHECK INTO GPS # 8009 USGS DISK ROD ON SOUTH SIDE 310th STREET WITH HORIZONTAL CHECKING GOOD AND VERTICAL SHOWING F+0.10'

10:15 A.M. DROVE EAST ON WIND TURBINE ROAD FROM CAVE & HEADED SOUTH DOWN GRASS WATERWAY TO 1ST 2 SUCKHOLES



I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature: Dean Remond Date Prepared: 07/27/2017  
 Reviewed by: \_\_\_\_\_ Engineer \_\_\_\_\_ Date Reviewed: \_\_\_\_\_



CONSTRUCTION ENGINEERING  
OBSERVATION REPORT

DATE:

07/27/2017

DAYS OF WEEK:

S M T W T F S

PROJECT NUMBER:

6428.1 WO #189

COUNTY, ROUTE, ROAD:

DD34

SHEET NO.

3 OF 3

LOCATION:

NEW OUTLET TO NORTH, HARDIN COUNTY

UPPER 60'S TO LOWER 80'S, SUNNY & BREEZY

JOB # 6428 0034

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

1:25 P.M. PICT # 6075 SEE PICTURE FOR DETAILS

1:25 P.M. PICT # 6076 SEE PICTURE FOR DETAILS

5TH TILE BLOWOUT HOLE SOUTH HAD A S.O' SW-NE AND 7.0 SE-NW X 5.5' DEEP HOLE. 32" CONCRETE PIPE IS 4.6' DEEP WITH PIPE RUNNING ON WEST SIDE OF BLOWOUT.

BLOWOUT <sup>WAS</sup> CAUSED BY WIDE JOINT THAT SUCKED ENGINEERING FABRIC INTO PIPE WITH NEXT JOINT ON NW ALSO. LOOKS LIKE IT WAS STARTING TO SUCK ENGINEERING FABRIC INTO PIPE AT JOINT TOO.

1:27 P.M. PICT # 6078 SEE PICTURE FOR DETAIL

1:38 P.M. PICT # 6079 & #6080 SEE PICTURE FOR DETAILS.

1:39 P.M. PICT # 6081 SEE PICTURE FOR DETAILS

2:00 P.M. LEFT SITE AFTER TEARING DOWN GPS BASE.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

07/27/2017

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING  
OBSERVATION REPORT

DATE:

07/27/2017

DAYS OF WEEK:

S	M	T	W	<b>T</b>	F	S
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PROJECT NUMBER:

6428.1 WO#189

COUNTY, ROUTE, ROAD:

0034

SHEET NO.

2 OF 3

LOCATION:

NEW OUTLET TO NORTH, HARDIN COUNTY

UPPER 60'S TO LOWER 80'S, SUNNY,  
& BREEZY

JOB # 4280034

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB  
NAME, ITEM NO. AND LOCATION

11:36 A.M. PICT # 6065 SEE PICTURE FOR DETAILS.

11:36 A.M. PICT # 6066 SEE PICTURE FOR DETAILS.

2ND TILE BLOW OUT HOLE SOUTH HAD A 2.5' Ø X 1.5' DEEP HOLE WITH  
TILE RUNNING SSW - NNE ON EAST SIDE OF BLOWOUT  
HOLE (NO CONCRETE PIPE BELL OR FABRIC OVER JOINT)  
PIPE IS 3.8' DEEP.

12:00 P.M. PICT # 6067 SEE PICTURE FOR DETAILS

1ST TILE BLOWOUT HOLE SOUTH HAD A 2.0' E-W X 2.5' N-S X 2.5' DEEP  
HOLE WITH PIPE RUNNING SSW - NNE ON WEST SIDE OF  
BLOWOUT (CONCRETE PIPE). PIPE IS 3.5' DEEP.

12:08 P.M. PICT # 6068 SEE PICTURE FOR DETAILS

3RD TILE BLOWOUT HOLE SOUTH HAD A 1.5' Ø X 1.0' DEEP HOLE.  
EXCAVATING HOLE WAS A LOT OF LOOSE SAND. FOUND  
4" SINGLE WALL CPP PERFORATED TILE COLLAPSED WITH  
A TEAR IS SOUTH SIDE OF TILE. ALL SOIL WAS FIRM  
UNDBR TILE AND ON EAST & WEST SIDES OF BLOWOUT  
TOP OF COLLAPSED TILE IS ONLY 1.5' DEEP.

12:38 P.M. PICT # 6069 SEE PICTURE FOR DETAILS.

12:39 P.M. PICT # 6070 SEE PICTURE FOR DETAILS.

12:52 P.M. PICT # 6071 SEE PICTURE FOR DETAILS.

1:04 P.M. PICT # 6072 SEE PICTURE FOR DETAILS.

4TH TILE BLOWOUT HOLE SOUTH 1.5' Ø X 1.0' DEEP HOLE LOOKS  
LIKE DRAINAGE SWALE HAD ENGINEERING FABRIC  
KNIFED IN ACROSS SWALE FOR EROSION CONTROL (SILT FENCE?)  
AND CUT THROUGH TILE TOP 4" SINGLE WALL PERFORATED TILE 1.0' DEEP.

1:05 P.M. PICTURE # 6074 SEE PICTURES FOR DETAILS.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

07/27/2017

Reviewed by:

Engineer

Date Reviewed

PICT #6065 IS LOOKING NE AT 1ST & 2ND TILE BLOWOUT HOLE SOUTH



1ST BLOWOUT HOLE SOUTH

2ND BLOWOUT HOLE SOUTH



GPS # 5100

TOP CONCRETE PIPE @ JOINT

PICT #6066 IS LOOKING WEST AT EXPOSED CONCRETE PIPE JOINT IN 2ND TILE BLOWOUT HOLE SOUTH (JOINT DID NOT LOOK LIKE IT HAD BEEN SUCKING SOIL; NOT SURE WHAT IS CAUSING BLOWOUT ASSUMING JOINT SUCKING SOIL INSIDE OF PIPE)

PICT # 6067 IS LOOKING WEST AT EXPOSED CONCRETE PIPE  
IS 1ST TILE BLOWOUT HOLE SOUTH. UNSURE OF CAUSE FOR BLOWOUT,  
POSSIBLE PIPE JOINT SUCKING SOIL ON SIDES



N  
→

GPS# 5105  
TOP CONCRETE  
PIPE



N  
↘

PICT 6068 IS LOOKING SE AT 3RD TILE BLOWOUT HOLE  
SOUTH.

PICT# 6069 IS LOOKING NE SHOWING COLLAPSED 4" SINGLE WALL PERFORATED TILE IN 3RD TILE BLOWOUT HOLE SOUTH WITH TOP OF TILE ONLY 1.5' DEEP



PICT# 6070 IS LOOKING NW SHOWING COLLAPSED 4" PERFORATED PLASTIC TILE WITH TEAR IN SOUTH SIDE OF TILE

PICT# 6071 IS LOOKING SOUTH WEST AT 4th TILE BLOWOUT HOLE SOUTH. PICTURE SHOWS ENGINEERING FABRIC IN TILE BLOWOUT HOLE.



N  
↓



N  
↓

PICT# 6072 IS LOOKING SW AT 4th & 5th TILE BLOWOUT HOLES SOUTH

PICT# 6074 IS LOOKING AT CUT THROUGH 4" SW PERF CPP  
IN 4TH TILE BLOWOUT HOLE SOUTH



ENGINEERING  
FABRIC FOR SILT  
FENCE

CUT THROUGH  
4" SINGLE  
WALL CPP  
PERFORATED  
TILE  
WITH SILT  
FENCE



4TH TILE BLOWOUT  
HOLE  
SOUTH

5TH TILE  
BLOWOUT  
HOLE  
SOUTH

PICT# 6075 IS LOOKING NE SHOWING 4TH & 5TH TILE BLOWOUT  
HOLES SOUTH

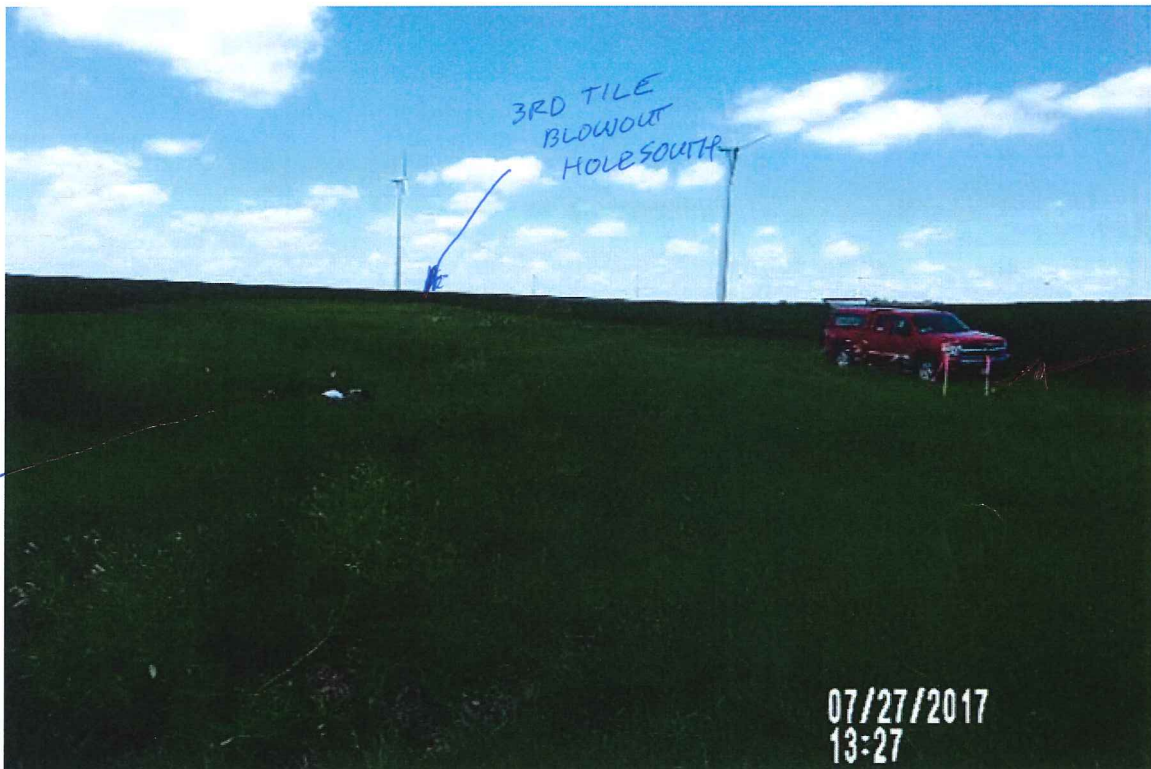
PICT# 6076 IS LOOKING NW AT 5th TILE BLOWOUT SOUTH



GPS# 5114  
CONCRETE PIPE  
WIDE JOINT  
SUCKED  
ENGINEERING  
FABRIC  
INTO PIPE  
ALONG WITH  
SOIL



THIS CONCRETE  
PIPE JOINT  
LOOKS LIKE  
ITSUCKED  
ENGINEERING  
FABRIC  
INTO PIPE  
TOO



5th TILE  
BLOWOUT  
HOLE SOUTH

3RD TILE  
BLOWOUT  
HOLE SOUTH

4th TILE  
BLOWOUT  
HOLE  
SOUTH



PICT# 6078 IS LOOKING NW SHOWING THREE OF THE SOUTH TILE BLOWOUT HOLES,



PICT# 6079 IS LOOKING NE AT 1ST TILE BLOWOUT HOLE SOUTH

↑  
N



↑  
N



GPS#5105  
0.5' Ø  
X 0.5' DEEP  
TILE BLOWOUT

PICT# 6080 IS LOOKING NE SHOWING ADDITIONAL TILE BLOWOUT HOLE BETWEEN 1ST AND 2ND TILE BLOWOUT HOLE SOUTH

PICT#6081 IS LOOKING NE AT ZND TILE BLOWOUT HOLE  
SOUTH

AN



CONSTRUCTION ENGINEERING  
OBSERVATION REPORT

DATE:

2019-08-13

DAYS OF WEEK:

S M ~~T~~ W T F S

SHEET NO.

1 OF 1

PROJECT NUMBER:

6428.1

COUNTY, ROUTE, ROAD:

CAVE

LOCATION:

DD 34

setup at cpt # 1

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

9:30 am - arrived on site - 2 man crew working with 1 excavator  
- crew was excavating 2 hole Hole, they had already dug 1 hole - found 24"Ø conc collapsed & 2 large offset joints.  
- 2nd hole - found - 24"Ø vcp tile collapsing

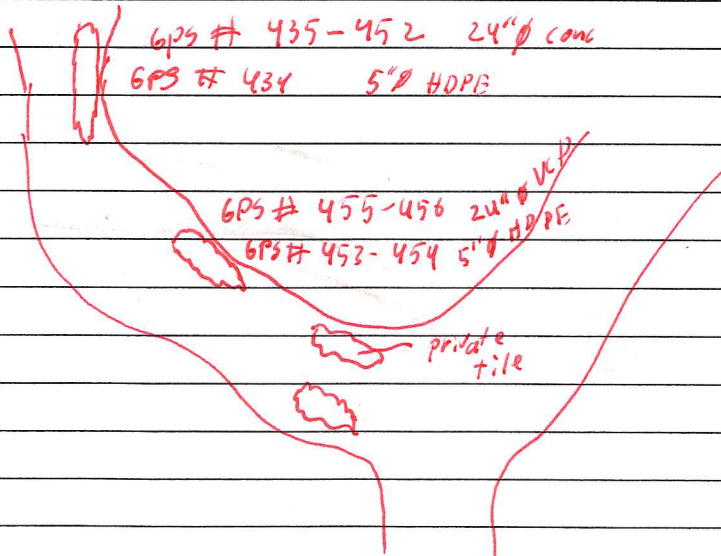
11:00 am - crew left for lunch & to get pipe/rock

12:00 - crew come back from lunch with pipe

12:45 - rock showed up

2:15 - crew left to get parts

3:30 - left site crew not back yet



totals:  
2 man = 3.75 hr  
excavator = 3.75 hr

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

*[Signature]*

Date Prepared:

2019-08-13

Reviewed by:

\_\_\_\_\_

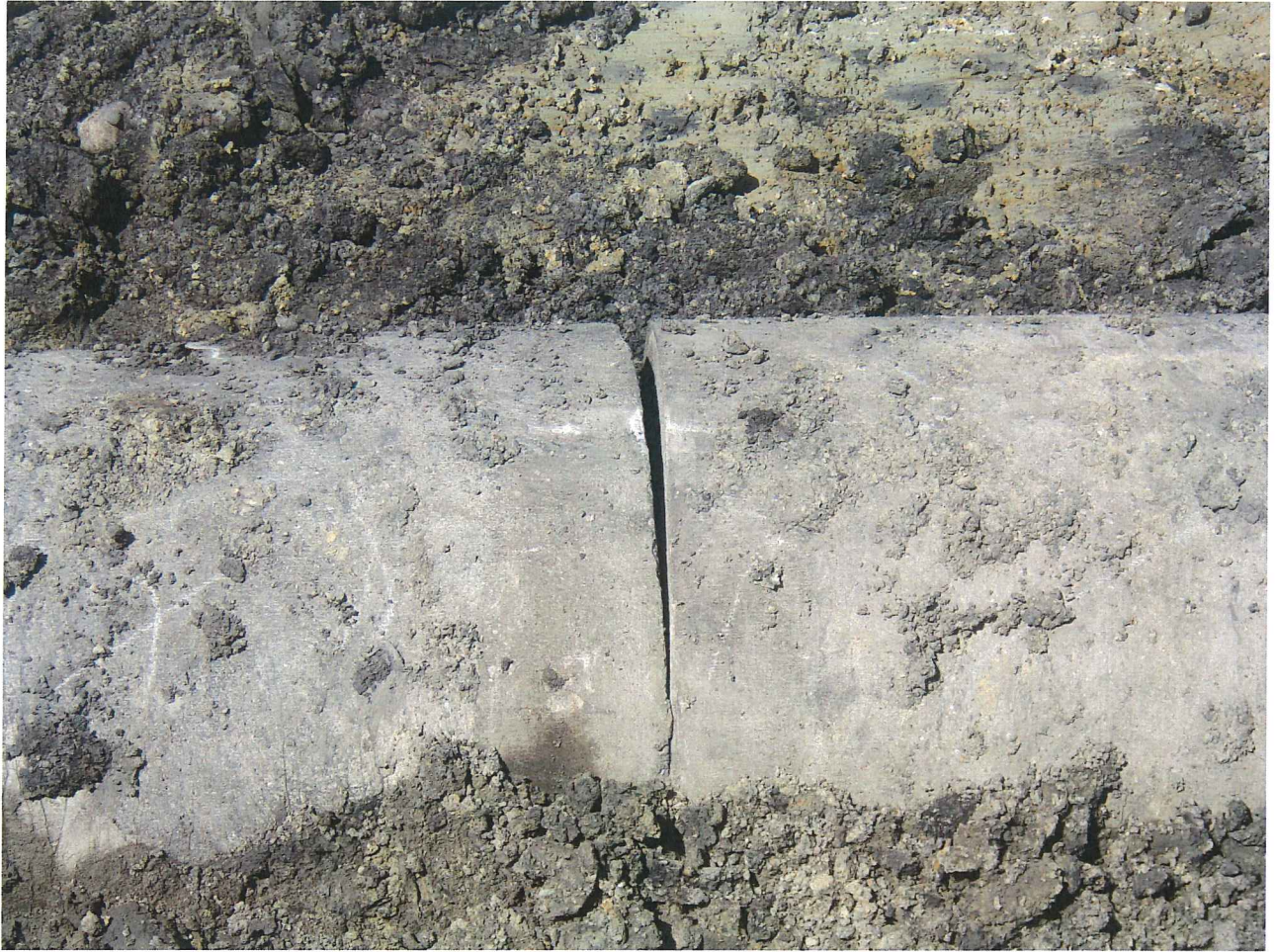
Engineer

Date Reviewed \_\_\_\_\_

















CONSTRUCTION ENGINEERING  
OBSERVATION REPORT

DATE:

2019-08-14

DAYS OF WEEK:

S M T ~~W~~ T F S

SHEET NO.

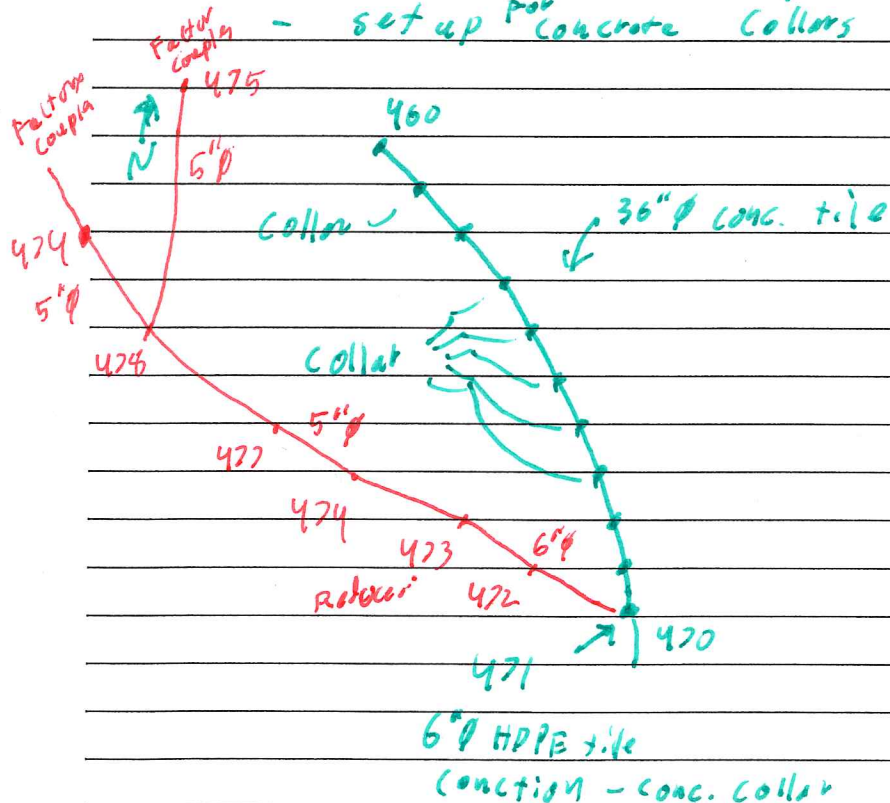
1 OF 2

PROJECT NUMBER: 6428.1  
 COUNTY, ROUTE, ROAD: CAVE  
 LOCATION: DD34

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

8:15 am - set up GPS at CPT #1  
 8:00 - 2 man crew arrived plus excavator  
 - gas line representative on site

9:45 - Found 5 wide Joints in a row that was causing sinkhole plus an additional wide joint  
 - shot tile line GPS # 460 - 470  
 - set up <sup>Pop</sup> concrete collars



11:20 - crew left  
 1:00pm - crew back  
 - conc truck arrived  
 - poured 12 conc. collar + 1 connection  
 2:15pm - done pouring  
 - they ordered to make conc. put an additional 3 bucket loads on one repair  
 3:15pm - started back filling  
 6:00pm - crew left

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature: \_\_\_\_\_ Date Prepared: \_\_\_\_\_  
 Reviewed by: \_\_\_\_\_  Engineer  
 Date Reviewed: \_\_\_\_\_

CONSTRUCTION ENGINEERING  
OBSERVATION REPORT

DATE:

2014-08-14

PROJECT NUMBER:

6428.1

COUNTY, ROUTE, ROAD:

C Ave

LOCATION:

DD-34

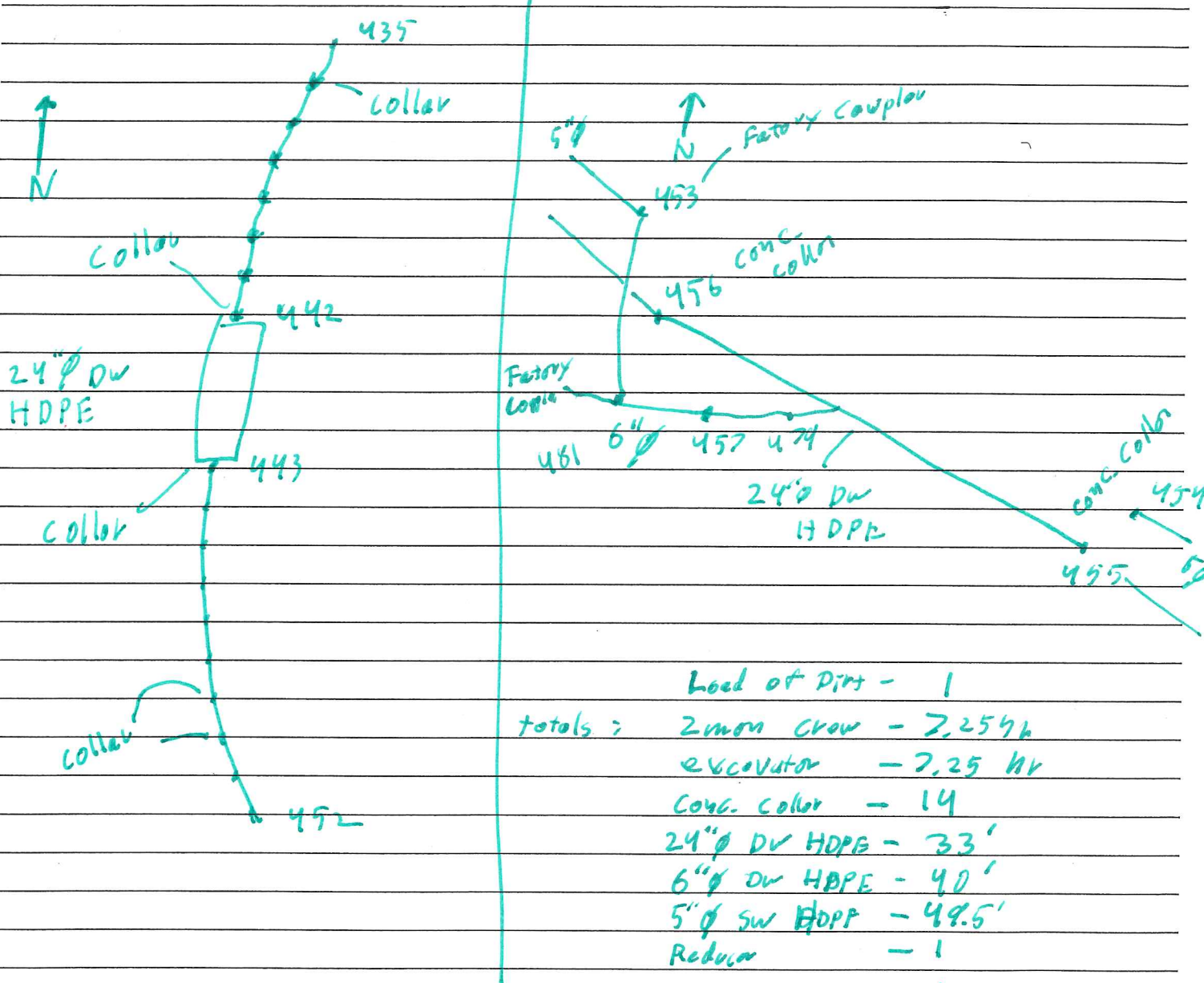
DAYS OF WEEK:

S M T  W T F S

SHEET NO.

2 OF 2

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION



- Load of Dirt - 1
- totals : 2man crew - 2.25 hr
- excavator - 2.25 hr
- conc. collar - 14
- 24" Ø DV HDPE - 33'
- 6" Ø DV HDPE - 40'
- 5" Ø SW HDPE - 49.5'
- Reducer - 1
- Wye - 1
- Factory coupler - 4

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

*[Signature]*

Date Prepared:

Reviewed by:

\_\_\_\_\_

Engineer

Date Reviewed

\_\_\_\_\_

































ACCOUNTING OFFICE  
 1710 EAST MAIN STREET  
 MARSHALLTOWN, IOWA 50158  
 PHONE: (641) 752-3696  
 FAX: (641) 752-8644



**CONCRETE INC.**

SOLD TO:

HANDS ON EXCAVATING

5 N. C AVE E.

TIME	FORMULA	LOAD SIZE	YARDS ORDERED	DRIVER/TRUCK	P.O. NUMBER	PLANT/TRANSACTION#
12:09:00	M30	10.00'	10.00	GARYH	64	02
DATE	LOAD #	YARDS DEL.	BATCH #	WATER TRIM	SLUMP	TICKET NUMBER
8/14/19	1	10.00	7676	0.00	4.00 10	7591

<p><b>WARNING</b>  <b>IRRITATING TO THE SKIN AND EYES</b>          Contains Portland Cement. Wear Rubber Boots and Gloves. PROLONGED CONTACT MAY CAUSE BURNS. Avoid Contact With Eyes and Prolonged Contact With Skin. In Case of Contact With Skin or Eyes, Flush Thoroughly With Water. If Irritation Persists, Get Medical Attention. KEEP CHILDREN AWAY. See back for additional warning information.</p> <p>CONCRETE is a PERISHABLE COMMODITY and BECOMES the PROPERTY of the PURCHASER UPON LEAVING the PLANT. ANY CHANGES OR CANCELLATION of ORIGINAL INSTRUCTIONS MUST be TELEPHONED to the OFFICE BEFORE LOADING STARTS.</p> <p>The undersigned promises to pay all costs, including reasonable attorney's fees, incurred in collecting any sums owed.</p> <p>All accounts not paid within 30 days of delivery will bear interest at the rate of 18% per annum. Not Responsible for Reactive Aggregate or Color Quality. No Claim Allowed Unless Made at Time Material is Delivered.</p> <p>A \$15.00 Service Charge and Loss of the Cash Discount will be Collected on all Returned Checks. Excess Delay Time Charged at \$70.00/HR.</p>	<p>PROPERTY DAMAGE RELEASE          (TO BE SIGNED IF DELIVERY TO BE MADE INSIDE CURB LINE)          Dear Customer- The driver of this truck in presenting this RELEASE to you for your signature is of the option that the size and weight of his truck may possibly cause damage to the premises and/or adjacent property if he places the material in this load where you desired. It is our wish to help you in every way that we can, but in order to do this the driver is requesting that you sign this RELEASE relieving him and his supplier from any responsibility from any damage that may occur to the premises and/or adjacent property, buildings, sidewalks, drive-ways, curbs, etc. by the delivery of this material, and that you also agree to help him remove mud from the wheels of his vehicle so that he will not litter the public street. Further, as additional consideration, the undersigned agrees to indemnify and hold harmless the driver of this truck and this supplier for any and all damage to the premises and/or adjacent property which may be claimed by anyone to have arisen out of delivery of this order.</p> <p>SIGNED  <b>X</b></p>	<p>Excessive Water is Detrimental to Concrete Performance          H<sub>2</sub>O Added By Request/Authorized By          _____ GAL X _____</p> <p>WEIGHMASTER</p> <p>NOTICE MY SIGNATURE BELOW INDICATES THAT I HAVE READ THE HEALTH WARNING NOTICE AND SUPPLIER WILL NOT BE RESPONSIBLE FOR ANY DAMAGE CAUSED WHEN DELIVERING INSIDE CURB LINE.</p> <p>LOAD RECEIVED BY:  <b>X</b> _____</p>
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QUANTITY	CODE	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
10.00 CY	M30	CONCRETE		
10.00 CY		TRUCKING TRUCK INCHARGE (NONTAXABLE)		

RETURNED TO PLANT	LEFT JOB	FINISH UNLOADING	DELAY EXPLANATION/CYLINDER TEST TAKEN	TIME ALLOWED
			1. JOB NOT READY 2. SLOW POUR OR PUMP 3. TRUCK AHEAD ON JOB 4. CONTRACTOR BROKE DOWN 5. ADDED WATER 6. TRUCK BROKE DOWN 7. ACCIDENT 8. CITATION 9. OTHER	TIME DUE
LEFT PLANT	ARRIVED JOB	START UNLOADING		DELAY TIME
TOTAL ROUND TRIP	TOTAL AT JOB	UNLOADING TIME		ADDITIONAL CHARGE 1
				ADDITIONAL CHARGE 2
				<b>GRAND TOTAL</b> >>

CONSTRUCTION ENGINEERING  
OBSERVATION REPORT

DATE:

2011-8-15

PROJECT NUMBER:

6428.1

COUNTY, ROUTE, ROAD:

C AVE

LOCATION:

DD-34

DAYS OF WEEK:

S M T W T F S

SHEET NO.

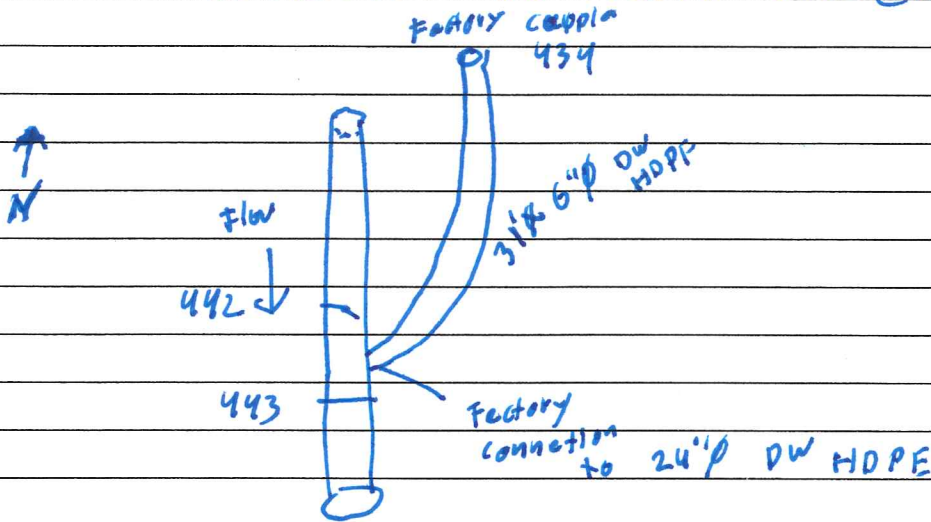
1 OF 1

70° - sunny

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

9:45 - arrived on site 2 man crew plus excavator working

- installed 31' 6" DW HDPE tile with connection to main tile (conc.)



- crew was backfilling holes.  
- told crew they need to seed after backfilling

11:15am - Left site

Need to check on seeding

totals: 2 man crew - 1.5 hrs  
excavator - 1.5 hrs  
6" DW HDPE - 31'  
factory coupler - 1

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

*[Signature]*

Date Prepared:

Reviewed by:

\_\_\_\_\_

Engineer

Date Reviewed \_\_\_\_\_











1, 3549815.445, 4938391.011, 1164.724, PAVING NAIL  
2, 3549863.888, 4936406.684, 1163.490, SCF PIPE HMA  
3, 3570955.426, 4946923.035, 1189.703, ALUMN DISK 8013  
4, 3549893.035, 4938466.536, 1164.628, IRS 5/8  
319, 3549916.015, 4936355.120, 1162.158, cm 0.4x  
321, 3549827.714, 4936434.290, 1162.258, ir12 tie  
323, 3549879.241, 4941668.918, 1184.678, nail shaft  
325, 3549938.598, 4941712.785, 1181.453, cm 0.5x  
327, 3549826.215, 4941616.489, 1184.610, cm 0.2x  
396, 3549815.701, 4938716.671, 1158.425, ir38 y6586 flsh  
407, 3549814.996, 4938500.426, 1158.822, sir  
408, 3549770.040, 4938515.290, 1158.822, sir  
409, 3549770.630, 4938717.619, 1158.822, sir  
410, 3549929.739, 4938499.164, 1156.149, TOP NW COR PARA  
411, 3549846.252, 4938362.672, 1164.474, CPT 3/4X2  
434, 3551326.592, 4938276.985, 1158.632, top 5 hdpe  
435, 3551318.946, 4938271.919, 1156.773, top 24 conc  
436, 3551316.613, 4938270.954, 1156.803, top 24 conc  
437, 3551314.394, 4938269.928, 1156.786, top 24 conc  
438, 3551312.180, 4938268.835, 1156.747, top 24 conc  
439, 3551309.924, 4938267.961, 1156.720, top 24 conc  
440, 3551307.534, 4938267.074, 1156.701, top 24 conc  
441, 3551305.244, 4938265.991, 1156.717, top 24 conc  
442, 3551302.815, 4938265.275, 1156.658, top 24 conc  
443, 3551293.380, 4938261.816, 1156.632, top 24 conc  
444, 3551290.950, 4938261.091, 1156.665, top 24 conc  
445, 3551288.639, 4938260.379, 1156.589, top 24 conc  
446, 3551286.366, 4938259.651, 1156.589, top 24 conc  
447, 3551283.672, 4938259.025, 1156.596, top 24 conc  
448, 3551281.340, 4938258.296, 1156.635, top 24 conc  
449, 3551278.944, 4938257.477, 1156.517, top 24 conc  
450, 3551276.476, 4938256.990, 1156.698, top 24 conc  
451, 3551274.000, 4938256.483, 1156.554, top 24 conc  
452, 3551271.711, 4938255.779, 1156.504, top 24 conc  
453, 3551086.180, 4938296.915, 1158.055, top 5 hdpe  
454, 3551057.135, 4938326.846, 1157.612, top 5 hdpe  
455, 3551056.689, 4938321.848, 1155.352, top 24 vcp  
456, 3551072.970, 4938305.508, 1155.362, top 24 vcp  
457, 3551070.662, 4938299.612, 1154.997, fl 6 vcp  
458, 3550828.188, 4938684.312, 1156.880, top 5 hdpe  
459, 3550824.056, 4938688.128, 1156.831, top 5 hdpe  
460, 3550803.034, 4938651.569, 1153.477, top 36 conc  
461, 3550799.389, 4938653.658, 1153.430, top 36 conc  
462, 3550795.931, 4938655.551, 1153.348, top 36 conc  
463, 3550792.313, 4938657.317, 1153.352, top 36 conc  
464, 3550788.839, 4938659.167, 1153.254, top 36 conc  
465, 3550785.135, 4938660.725, 1153.359, top 36 conc  
466, 3550781.364, 4938662.256, 1153.326, top 36 conc  
467, 3550777.573, 4938663.814, 1153.291, top 36 conc  
468, 3550773.473, 4938664.852, 1153.235, top 36 conc

469,3550769.575,4938666.018,1153.189,top 36 conc  
470,3550766.188,4938667.107,1153.124,top 36 conc  
471,3550766.003,4938666.649,1153.100,5 hdpe conexion  
472,3550768.049,4938664.183,1155.899,6 hdpe  
473,3550775.139,4938657.764,1156.818,6-5 reducer hdpe  
474,3550776.888,4938655.620,1156.597,5 hdpe  
475,3550804.987,4938633.497,1156.525,5 hdpe  
476,3550785.066,4938644.180,1156.933,5 hdpe  
477,3550780.968,4938650.430,1156.768,5 hdpe  
478,3550784.751,4938644.737,1157.052,5 hdpe  
479,3551069.475,4938304.039,1155.063,5 hdpe  
480,3551070.085,4938299.960,1155.646,5 hdpe  
481,3551070.283,4938299.192,1155.774,5 hdpe  
482,3551055.500,4938328.997,1157.645,5 hdpe  
8008,3570909.040,4931315.550,1221.920,USGS DISKROD  
8009,3555125.030,4932464.280,1165.210,USGS DISKROD  
8012,3555149.140,4946702.110,1202.250,USGS DISKROD  
8013,3570961.250,4946914.650,1189.250,USGS DISKROD  
9814,3555109.870,4941633.480,1207.570,USGS DISKROD