

Water Right Number 4101-3

1. Considered 10-6, 1-77
2. Name of Applicant CITY OF SIOUX FALLS
3. Post Office Address _____
4. Amount of water claimed 1.0
5. Source of water supply 37' WELL
6. Water to be used for MUNICIPAL

Acres to be irrigated _____

7. Water to be diverted and used in MINNEHAHA County
about 4N, 1/2E Miles _____ of SIOUX FALLS

8. Proof of Publication

Received 9-21-77

Not received _____

9. Application

Approved _____

Subject to _____

Not approved _____

Action deferred _____

10. Remarks:

No. 4101-3Map No. 3335-3 Water Division No. 2 BIG SIOUX RIVER District
(Blanks to be filled by the Engineer for the W. R. C.)

APPLICATION FOR PERMIT

To Appropriate Water within the State of South Dakota

(NOTE--Draw a line through items not applicable)

1. Name of Applicant City of Sioux Falls
 Postoffice address City Hall; 9th & Dakota, State South Dakota
 If a corporation show date and place of incorporation N/A
2. Method of accomplishing work (contract, employment of others, or by direct labor) Contract
3. Name of diversion work Well # 45
4. Amount of water claimed (cubic feet per second) 1 cfs
5. Source of water supply Groundwater
6. Location of point of diversion T102N, R49W Sec 15dec

County Minnehaha

7. Annual period or periods during which water is to be used Continuous
8. Use to be made of water, (irrigation, industrial, municipal, commercial, recreation, etc.) Municipal
9. For irrigation use, N/A Total number of acres to be irrigated _____

List below each forty acre subdivision, or lot, or fraction thereof and show number of acres to be irrigated in each.

Land Description	No. Acres Irr.	Land Description	No. Acres Irr.

Attach sheet if more space is needed

10. Time required to complete construction of water supply system 1 years. Additional time required to complete application of water to the proposed beneficial use 1 years.

11. Choice of newspaper for Notice of Intent to Appropriate Water publication Sioux Falls Argus Leader

12. Principal Features of the Proposed Water Supply System.

A. Works proposed to divert water from its natural source.

30" diameter, gravel pack well approximately 34' deep

B. Works proposed to transport water to place of use.

Underground pipeline

C. Works proposed to apply water to beneficial use.

Existing Water Purification Plant and Distribution systemEstimated Total Cost \$ 75,000Attachments: Attach Form 2A if diversion from a well or dugout, or if storage of water, is proposed. Attach map.
(See instructions concerning preparation.)

STATE OF SOUTH DAKOTA

County of MINNEHAHA ss.I, LES HASE

the applicant, certify that I have read the foregoing application and have examined the attached map and that the matters therein stated are true and that I intend, and am able to complete the necessary construction

Signed Les HaseSubscribed and sworn to before me this 1st day of August 19 77Edna K. Decker
Notary Public (or other qualified officer)My Commission Expires
January 22, 1985

WATER RIGHT APPLICATION APPROVAL

The Water Rights Commission hereby approves Water Right Application No. 4101-3
CITY OF SIOUX FALLS CITY HALL, 9TH & DAKOTA, SIOUX FALLS
 (Applicant) (Post Office Address)
SOUTH DAKOTA 57101 With the following modifications:

PRIORITY FOR THIS PERMIT WAS ESTABLISHED UNDER FUTURE USE PERMIT
 NO 448-2. PERMIT NO 448-3 REFLECTS THE REDUCTION OF THE 1.0 CFS
 APPROVED UNDER THIS PERMIT, LEAVING 29.6 CFS FOR FUTURE USE.

The ~~irrigation~~ well approved under this Permit is located near
 domestic wells which may obtain water from the same aquifer.
 The ~~irrigation~~ well owner, under this Permit, shall control his
~~irrigation~~ withdrawals so there is not a reduction of needed
 water supplies in adequate domestic wells.

Date of first receipt of application AUGUST 4, 19 77
 Date of return to applicant for correction, amendments or changes required _____, 19 ____
 Date of receipt of corrected application _____, 19 ____
 Approved OCTOBER 6, 19 77, Recorded in Book 1A Page 113

WATER RIGHT PERMIT NO. 4101-3

The Water Rights Commission hereby grants and issues this Water Right Permit No. 4101-3 authorizing the construction of
 the water use system and the putting of water to beneficial use as stated in the Application and as modified in the Water Right
 Application approval, subject, however, to the following limitations and conditions:

1. The date from which applicant may claim right is APRIL 8, 19 57
2. The equivalent of at least one-fifth of the work above specified is to be completed on or before APRIL 15, 19 78
3. The whole of said work is to be completed on or before OCTOBER 6, 19 78
4. The limit of time from proof of beneficial use of water appropriated in accordance herewith is OCTOBER 6, 19 79
5. The water appropriated shall be used for the purpose of MUNICIPAL USE

6. The prior right of all persons who, by compliance with the laws of the State of South Dakota, have acquired a right to the use of
 water must not be injuriously affected by this appropriation.

7. The amount of the appropriation herein granted shall not exceed 1.0 cubic feet per second; neither shall it
 exceed the capacity of the above described water supply system, nor shall it exceed the amount of water needed for ~~beneficial use~~
~~and if for the irrigation purpose, said appropriation must be limited to not more than 1.0 cubic feet per second~~
~~limited to not more than one-twentieth (1/20) of one cubic foot of water per second of time for each acre to which water is~~
USED FOR MUNICIPAL PURPOSES

actually and beneficially applied for irrigation on or before OCTOBER 6, 19 79; said water to be used during the
 following described annual period: CONTINUOUSLY

Witness my hand this 2ND day of NOVEMBER, 19 77

WATER RIGHTS COMMISSION

By: John Hatch
 Chief Engineer, Executive Officer

Certificate of Construction Issued NOVEMBER 12, 19 81

Water License Issued NOVEMBER 12, 19 81

BEST IMAGE POSSIBLE FROM POOR ORIGINAL

Log No.

19

Job No.

620-999

Crew Chief

Hagedorn

FIELD DATA SHEET

Vehicle Required: Truck - All Terrain

SOIL CLASSIFICATION

Depth of Layer	Sample No./Depth	BLOWS				Rec. in Inch	Notes
		Set	1st 1/2 FT	2nd 1/2 FT	Total		
0-4 1/2	/						Fat clay, black (CH)
4 1/2-9	6-8	12	10	10	20		Sand, med. grained, a little gravel, br. moist to the wib, dense (SP)
9-13	10-12	3	2	2	4		Sand, med. grained, a little gravel, light brownish gray, wib, dense (SP)
13-19 1/2	15-17	8	10	10	20		Sand, coarse grained, a little gravel, light brownish gray, wib, dense (SP)
19 1/2-22	20-22	7	5	5	10		Sand, med. to fine grained, trace of gravel, gray, wib, med. dense (SP)
22-24	25-27	7	11	13	24		Sand, med. grained, a little gravel, light brownish gray, wib, dense, a few lenses of gravel between 22-24 (SP)
24-37	35-37	3	5	5	10		lean clay, a little gravel, gray, br. stiff (CL) - Pushed down if gravel in sample from 30-37, could not obtain sample

THE UNIVERSITY OF CHICAGO

[illegible][illegible]

12. Principal Features of the Proposed Water Supply System (continued.)

D. Well Information or Estimates

- (1) Drill Hole, Diameter 42", Depth 37'
- (2) Casing, Type Steel Diameter 36" Thickness .50" minimum
(wood, concrete, steel, etc)
- (3) Perforated Screen.
Type Stainless Steel, Diameter 36", Length 6'
- (4) Gravel Pack, Thickness 7", Length of gravel pack 23'

E. Dugout Information or Estimates N/A

- (1) Surface dimensions _____, Depth _____

F. Fill out for Either a Well or a Dugout.

- (1) Water Bearing Materials. (Please attach a copy to test well log if available.)

Character of Water bearing materials Fine to coarse sand and gravel

Depth to top of water bearing material 5

Depth to bottom of water bearing material 34

Thickness of water bearing material 29

Depth to water (ground surface to water level) 8

- (2) Distance to nearest existing household or livestock watering wells.

On same owner's property 106 rds. On property owned by others 106 rds.

G. Water Storage Dams. N/A

If the proposed water use system contains one or more water storage dams, please show in the space below, the height, maximum water depth, surface area and storage capacity of each storage dam. The location of each water storage dam should be shown on the water right map.

Lin Hash
Signature of Applicant

Permit No. 4101-3

Water Diversion No. 3 Big Sioux River Water District
10170203

CERTIFICATE OF CONSTRUCTION

This is to Certify, That the City of Sioux Falls

_____ the holder S of
Permit No. 4101-3, issued upon Application No. 4101-3, bearing date of priority of _____
April 8, 1957 authorizing the diversion of 1.0 cu. ft. per second of the waters of _____
ground water (one well) County of Minnehaha, State of South Dakota at _____
a point 2030'W and 100'N of the SW corner of Section 15, T101N, R49W

_____ for municipal

_____ purposes have va complied with the provisions of the laws of the State of South Dakota relating to proof of
completion of the works of diversion set out and described in said Permit; that said works are found in satisfactory
condition for diverting and conveying to the place of intended use 1.0 cu. ft. per second of water.

Date November 12, 1981


JOHN HATCH, Chief Engineer
Water Rights Division

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 4101-3

(1) WHEREAS, On the 4th day of August A. D. 19 77
the City of Sioux Falls

made Water Right Application No. 4101-3 for a permit to use 1.0 cubic feet per second of the waters
of ground water (one well)

County of Minnehaha, State of South Dakota, for municipal use
purposes; and

(2) WHEREAS, On the 5th day of October A. D. 19 77

Permit No. 4101-3, with a date of priority of April 8, 1957
was issued to said applicant a for the diversion of said water, and provided for the completion of construction of the water
supply system therein described on or before the 6th day of October A. D. 19 78 and for the
application to beneficial use of said water on or before the 6th day of October A. D. 19 79

and:

(3) WHEREAS, It is hereby certified that the applicant has complied with the provisions of the laws of the State of South Dakota
relating to completion of the construction of the water supply system and is entitled to divert 1.0 cubic feet
per second of water for beneficial use and,

(4) WHEREAS, It is hereby certified that the applicant has complied with the provisions of the laws of the State of South Dakota
relating to the application of water to beneficial use of the following extent,

to be used in place for municipal purposes for the City of Sioux Falls.

(5) NOW, THEREFORE, By the virtue of the authority vested in us by the laws of the State of South Dakota, We hereby grant and confirm to the City of Sioux Falls, South Dakota

XX
the holder S and owner S of said permit No. 4101-3 a water right, dating from April 8, 1957
to use of 1.0 cubic feet per second of the waters
of ground water (one well)
in the County of Minnehaha and State of South Dakota, or so much thereof as may be necessary for the
purposes hereinbelow mentioned, to be diverted at a point 2030'W and 100'N of the SW corner of
Section 16, T401N, R49W

and conducted ~~xxxxxx~~ through the City's distribution system

for the purpose of municipal use

Subject to any limitations listed in Water Right Permit No. 4101-3 and subject to the laws of the State of South Dakota.

WITNESS, My hand and seal of our office at Pierre, South Dakota
this 12th day of November A. D.
Nineteen Hundred and Eighty-one

WATER MANAGEMENT BOARD

By:

John Hatch
Chief Engineer, Executive Officer

JOHN HATCH

Publish first publication, on or before September 15, 1977

NOTICE OF HEARING ON
APPLICATION TO APPROPRIATE WATER

Pierre, South Dakota 57501

August 30, 1977

Notice is hereby given that the City of Sioux Falls ~~the City of Sioux Falls~~

~~the City of Sioux Falls~~, South Dakota, has made an application in accordance with the provisions of SDCL 46-1-1 thru 46-1-8; 46-2-9 thru 46-2-11, 46-2-13; 46-5-1 thru 46-5-8, 46-5-10 thru 46-5-22, 46-5-41, 46-6-3, 46-6-5, 46-6-6.1, 46-6-10, 46-6-14 and Commission Rules ARSD 52:01:01:01 thru 52:01:01:13, for a permit to appropriate from future use permit for beneficial use 1.0 cubic feet of water per second of time from the ground water

through the Well #45, the point of diversion of which is to be located in the SE 1/4 SW 1/4

of Section 15, Twp. 102N Range 49W. Said water to be used for the purpose of providing ~~municipal water supplies for the City of Sioux Falls~~

municipal water supplies for the City of Sioux Falls.

This Application No. 4101-3 will be considered by the Water Rights Commission at the Holiday Inn, Spearfish, SD upon the 6th day of October, 1977 at 9:00 A.M. The Commission is authorized to make a determination on this application at the hearing. All interested persons may appear and be heard. Any person who may be affected by a Commission decision who desires to present evidence or cross-examine witnesses according to SDCL 1-26 may notify the Commission in writing prior to the hearing or orally at the hearing.

WATER RIGHTS COMMISSION

James Winterton
Water Rights Specialist

cc: City of Sioux Falls
City Hall
9th & Dakota
Sioux Falls, SD 57101

No. 4101-3

PROOF OF PUBLICATION

STATE OF SOUTH DAKOTA)
County MINNEHAHA) ss.

I, JOHN K. KOLL hereby
certify that the annexed printed copy of Notice of Intent to Appropriate

Water was taken from the SIOUX FALLS ARGUS LEADER

A newspaper which during the whole time of publication of said notice
herein after stated, has been and is printed and published in the

CITY of SIOUX FALLS

County of MINNEHAHA and State of South Dakota;
that the said notice was published in said newspaper on the following
two dates:

Tuesday September 13, 1977

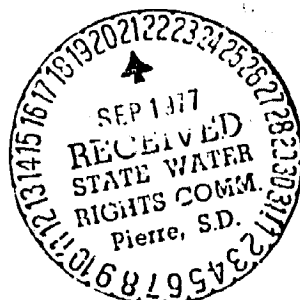
Tuesday September 20, 1977

John K. Koll
(Signature)

John K. Koll, Controller
(Title)

September 20, 1977
(Date Signed)

NOTICE OF HEARING
ON
APPLICATION TO APPROPRIATE
WATER
At Pierre, South Dakota, August 30, 1977
Notice is hereby given that the City
of Sioux Falls, South Dakota, has
made an application in accordance
with the provisions of SDCL 46-1-1 thru
46-1-3; 46-2-1 thru 46-2-11; 46-2-13; 46-5-1
thru 46-5-8; 46-5-10 thru 46-5-12; 46-5-41;
46-6-1, 46-6-5, 46-6-1.1, 46-6-10, 46-6-14
and Commission Rules ARSD
52:01:01:01 thru 52:01:01:13, for a
permit to appropriate from future use
permit for beneficial use 1.8 cubic feet
of water per second of time from the
ground water through the Well #45, the
point of diversion of which is to be
located in the SE1/4 SW1/4 of Section 15,
Twp. 102N Range 49W. Said water to
be used for the purpose of providing
municipal water supplies for the City
of Sioux Falls.
This application No. 4101-3 will be
conducted by the Water Rights
Commission at the Holiday Inn,
Spearfish, SD upon the 8th day of
October, 1977 at 10 A.M. The Com-
mission is authorized to make a
determination on this application at
the hearing. All interested persons
may appear and be heard. Any person
who may be affected by a Commission
decision who desires to present
evidence or cross-examine witnesses
according to SDCL 1-36 may notify the
Commission in writing prior to the
hearing or orally at the hearing.
WATER RIGHTS COMMISSION
James Winterton
Water Rights Specialist
Sept. 13, 20, 1977



RECEIPT

WATER RIGHTS COMMISSION
State of South Dakota

No 4 8512

PIERRE, October 7, 19 81

RECEIVED OF Les Hash, Water Treatment Plant, 2100 N. Minnesota Ave., Sioux Falls, SD 57104
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit to Appropriate Water No. (examination, processing, recording and filing)		
Fee for Inspecting Construction, and Issuing Cert. of Construction No. 4101-3		50 00
Fee for Inspecting Beneficial Use, and Issuing Water License No. 4101-3		
Fee for Issuing Location Certificate-Dry Draw, No.		
Fee for filing		
Fee for certified copy of		
Fee for Print copy of map		
Fee for Certifying		
Fee for		
(any other work as provided by law)		
TOTAL		50 00

WATER RIGHTS COMMISSION

By *(Signature)*
Chief Engineer, Executive Officer
JOHN HATCH /CBE

Permit No. 4101-3
 Water Division 3 Big Sioux River Water District

REPORT OF EXAMINATION OF WORKS
 AND/OR APPLICATION OF WATER TO BENEFICIAL USE

TO: WATER RIGHTS, WATER MANAGEMENT BOARD / FOSS BLDG., PIERRE, SOUTH DAKOTA 57501

I have this day made a thorough examination of the water use system constructed by CITY OF SIOUX FALLS holder
 of Permit No. 4101-3, bearing date of priority of APRIL 8, 1957
 authorizing the diversion of 1.0 cu. ft. per second of the waters of GROUNDWATER
 for MUNICIPAL purposes, in MINNEHAHA County.

I have to report on the condition of the same as follows:

The Water Use System consists of,

- A. Works used to divert the water: WELL #45
37' DEEP WELL WITH 30" STEEL CASING - 6' SS SCREEN
BYRON JACKSON "FLOWWAY" 8" PUMP (NOTAG) POWERED BY
25HP REULAND ELECTRIC MOTOR
- B. Works used to transport water to place of use,
1/2 MILE 12" BURIED STEEL LINE TO 24" PIPELINE
TO TREATMENT PLANT
- C. Works used to apply water to beneficial use.
WATER IS USED FOR VARIOUS MUNICIPAL PURPOSES
WITHIN THE CITY OF SIOUX FALLS THROUGH THE
CITY DISTRIBUTION SYSTEM

The system is in the following condition: GOOD

The point of diversion is located 2030' W & 100' N OF THE SW CORNER,
SECTION 16, T10N, R49W

The works are capable of diverting and conveying to the place of use 1.0 (450 GPM)
 cu. ft. per second of water which is to be used for MUNICIPAL USE

Water has been put to beneficial use to the maximum extent as follows:

comprising a total of _____ acres of land.

Date SEPTEMBER 3 1981
Burton Jones
 (Signature)



4101-3

DEPARTMENT OF WATER & NATURAL RESOURCES

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

February 7, 1991

Lyle D Johnson, Water/Wastewater Manager
Utilities Department
224 W 9th Street
Sioux Falls SD 57102

Dear Mr. Johnson:

This letter is in response to my inspection of the City's water permits/rights completed on January 16, 1991.

Several of the city's permits can be licensed after receipt of the following information:

- 1) Permit Nos. 5127-3 and 5127A-3 (Well Nos. 53 thru 58).
Permit No. 5115-3 (Well Nos. 48 thru 52).
Permit No. 5235-3 (Well Nos. 60 thru 65).

- Sustained pump rate for each well under optimal operating conditions,
- Type and horsepower of the submersible units in each of the wells, and
- Brief description of the distribution system.

I have located a well completion report (copy enclosed) for a well that appears to be north of well No. 58. A copy of the well completion report for well No. 58 is also enclosed. No well was noted north of No. 58 during my inspection. Please explain if the well exists as described on the enclosed report and if the well is being used by the city.

- 2) Permit No. 5202-3 for water impounded in Silver Creek by the Big Sioux diversion dam. Two units are used with a capacity of 700 gpm each.

- Type and model no. of the motor and pump with the horsepower.

- 3) Permit No. 5334-3 for the Big Sioux River pump facility.

- Brief description of the operation of the facility at peak operating capacity.

An application (forms enclosed) needs to be approved to increase the permitted pumping rate to 46.4 cfs and to increase the annual volume of water if you plan to exceed the current 10,000 acre-feet. If approved, No. 5334-3 and the new permit would be issued one water license.

(continued)

February 7, 1991
Lyle D Johnson
Page 2 of 3

The following changes are needed to correct errors on the current licenses:

- 1) The following licenses need to have R50W deleted and be reissued for R49W:

254-3, 255-3, 256-3, 257-3, ^{cancel RD 5/13/91} 258-3, 259-3, 260-3, 261-3, 262-3, 264-3, 266-3, 267-3, 269-3, 270-3, 272-3, 273-3, 275-3, 276-3, and 274-3 needs the same range correction plus should be T102N instead of T103N.

License No. 300-3 needs to have section 32 deleted and be reissued for section 33. The original notice of hearing and application are correct.

License No. 4101-3 needs to have T101N deleted and be reissued for T102N and 2,030 feet east rather than 2,030 feet west. The original notice of hearing is correct. ^{Correct township advertised, wrong township placed on license. SDCL 46-5-4.1 should address problem.}
^{incorrect (wrong section)}

License Nos. 4098-3, 4099-3, 4100-3, and 4812-3 also need to be reissued to identify the correct location of the wells. The original notices of hearing are correct for each license.

- 2) The notice of hearing for 1306-3 needs to be readvertised to correct a diversion point error (should be NW1/4 NW1/4 instead of NE1/4 NE1/4).

The notice of hearing for 4811-3 needs to be readvertised to correct a diversion point error (should be T102N instead of T101N).

Each of these changes (Nos. 1 & 2) will be initiated by the Division of Water Rights. Item No. 2 will require publication of a notice of hearing. The city will be notified of the completion of the corrections.

Well Nos. 30, 31, 32, and 33 have been rehabilitated in the last two years. Revisions may also be needed to some of the water rights held by the city to reflect changes in the pumping capacity of the wells. If the sustained pump rate of these wells under optimal operating conditions is less than the permitted pump rate, then the licenses should be reissued for the reduced pump rate. If the sustained pump rate exceeds the permitted amount, then a new permit is needed for the increase in the pump rate. Please indicate what the sustained pump rates are for well Nos. 30, 31, 32, 33, and other wells as rehabilitation efforts and aquifer conditions allow.

^{259-3 RD 5/13/91}
Water Right Nos. 254-3, 255-3, [^]265-3, 268-3, 271-3, and 1579-3 will be scheduled for a hearing to allow the Water Management Board to consider cancellation of the water rights due to abandonment and/or forfeiture. Notice will be given of the time and place of hearing. If the Parks and Recreation Department is using of the well authorized by No. 1579-3, please inform me.

February 7, 1991
Lyle D Johnson
Page 3 of 3

In response to your questions during our meeting on January 17, 1991, the city can plug abandoned wells if the work is completed according to the Well Construction Standards. A copy of the standards and some plugging report forms are enclosed for the city's use.

Water Permit No. 1790-3 held by the Lincoln County Rural Water System is for supplying the rural water system from the city's well field. Enclosed is a copy of Permit No. 1790-3, including the affected city permits and a resolution signed by the mayor of Sioux Falls.

Thank you and your staff for the assistance we received concerning these inspections. I appreciate Mr. Holden taking the time to show us around. If you have any questions regarding any of this information, please contact me.

Sincerely,



Ron Duvall
Natural Resources Engineer
605 773-3352

enc.

cc: Glenn Dostal, HDR Engineering, Inc.

STATE OF SOUTH DAKOTA
REISSUED WATER LICENSE NO. 4101-3

(1) The City of Sioux Falls, of 224 W 9th Street, Sioux Falls, SD 57102 was issued Water License No. 4101-3, November 12, 1981 for a water right to appropriate 1.00 cubic feet of water per second from groundwater (one well), Minnehaha County, South Dakota for municipal purposes. Water License No. 4101-3, with a priority date of April 8, 1957 (established under Future Use Permit No. 448-3) was issued to the City for diversion of water with construction of the described water supply system to be completed on or before October 6, 1978 and the application to beneficial use of said water completed on or before October 6, 1979.

On January 16, 1991, an inspection of the City's water permits and water rights was conducted. The inspection found the well specified in Water Right No. 4101-3 was not located as described on the original report of examination of works dated September 3, 1981, or on the water license issued November 12, 1981. The water license is being reissued to identify the correct location of the well.

(2) It is certified that the City of Sioux Falls has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 1.00 cubic feet of water per second for beneficial use. The location of the diversion point is - 2030'E and 100'N of the SW corner of Section 16, T102N, R49W (SE¼SW¼).

(3) The City of Sioux Falls has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use.

(4) Pursuant to South Dakota Water Law 46-5-30.1 the City of Sioux Falls of 224 W 9th Street, Sioux Falls, SD 57102 the holder and/or owner of Water Right No. 4101-3 is issued a license to appropriate water, the right to use 1.00 cubic feet of water per second from groundwater (one well) with a priority date of April 8, 1957 (established under Future Use Permit No. 448-3) from the location specified in (2) of this license. The water is used for municipal purposes. This license is subject to any limitations or qualifications listed in Water Right No. 4101-3 and subject to South Dakota State Law.



JOHN HATCH, Chief Engineer
Water Rights Division
Department of Environment and Natural Resources

NOV 15 1994

date



4101-3

DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3181

NOV 15 1994

4101-3

Lyle D. Johnson
Water/Wastewater Manager
Utilities Department
City of Sioux Falls
224 W. 9th Street
Sioux Falls, SD 57102

Dear Mr. Johnson:

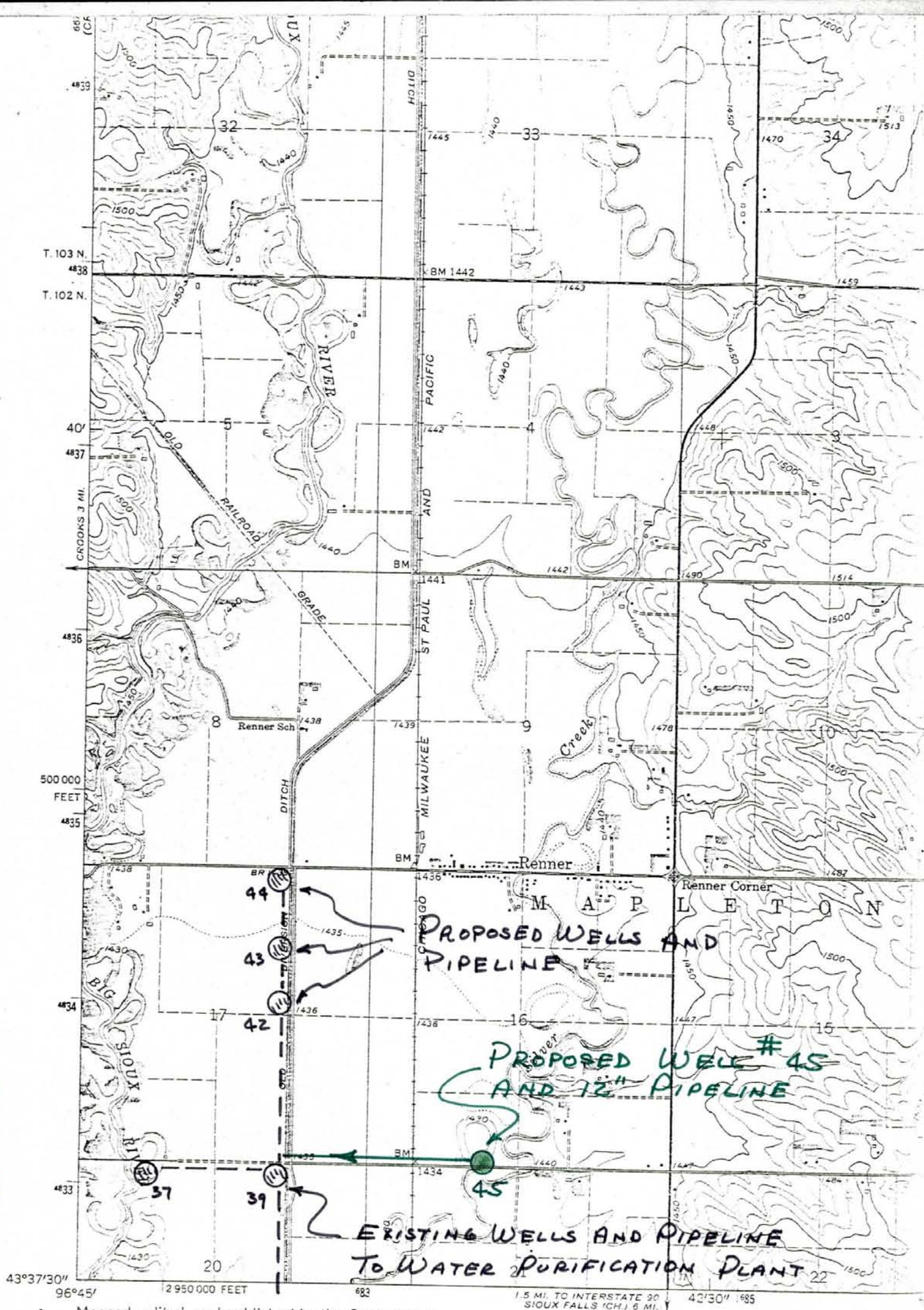
Enclosed is Reissued Water License No. 4101-3. The license was reissued to identify the correct location of the well.

As long as you use the water beneficially, as stated in the Water License, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Very truly yours,

JOHN HATCH, Chief Engineer
Water Rights Division
(605) 773-3352

gm
enclosures



Mapped, edited, and published by the Geological Survey

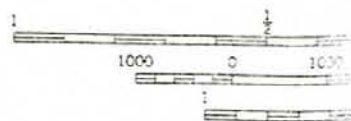
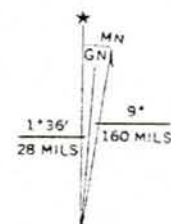
Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1958. Field checked 1962

Polyconic projection. 1927 North American datum
10,000-foot grid based on South Dakota coordinate system, south zone
1000-meter Universal Transverse Mercator grid ticks, zone 14, shown in blue

Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked

1.5 MI. TO INTERSTATE 90
SIOUX FALLS (CH.) 6 MI.



DOTTE

UTM GRID AND 1962 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

THIS MAP COME
FOR SALE BY U. S. GEOLOGICAL
A FOLDER DESCRIBING TOP

**SOUTH DAKOTA
WATER PERMIT NO. 8497-3**

Date of first receipt of application February 23, 2021.

Date of return to applicant for corrections, amendments or changes February 24, 2021.

Date of receipt of corrected application March 5, 2021.

The Chief Engineer, on behalf of the Water Management Board, issues Water Permit No. 8497-3 to City of Sioux Falls Water Division, 2100 N Minnesota Ave, Sioux Falls SD 57104 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 8497-3 transfers water appropriated under existing Water Right Nos. 1347-3 and 4101-3 held by the City of Sioux Falls to a new collector well. Water Right No. 1347-3 authorizes use of 2,844 acre-feet of water annually at a maximum pump rate of 5.913 cubic feet of water per second (cfs) from one well completed into the Big Sioux: Sioux Falls aquifer located in the SW 1/4 SW 1/4 Section 4-T101N-R49W. Water Right No. 4101-3 authorizes a maximum pump rate of 1.0 cfs from one well completed into the Big Sioux: Sioux Falls aquifer located in the SE 1/4 SW 1/4 Section 16-T102N-R49W. This permit transfers the 1.00 cfs diversion rate, equating to 724 acre-feet (AF) of water annually, authorized by No. 4101-3 and 3.927 cfs and 1,876 acre-feet annually authorized by No. 1347-3 for a total diversion authority transfer of 4.927 cfs and 2,600 acre-feet annually. The site for the new collector well is located in the SE 1/4 NW 1/4 Section 9-T102N-R49W approximately one-half mile north of Renner SD and will be completed into the Big Sioux: Sioux Falls aquifer.
2. The water appropriated shall be used for the purpose of municipal use and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date of approval of Permit No. 8497-3 is May 24, 2021.
5. The date from which applicant may claim right is April 8, 1957 (No. 4101-3 for 1.0 cfs & 724 AF) and (No. 1347-3 for 3.927 cfs & 1,876 AF).
6. One-fifth of the construction is to be completed on or before November 24, 2023.
7. All construction is to be completed on or before May 24, 2026.
8. Water is to be put to beneficial use on or before May 24, 2030.
9. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

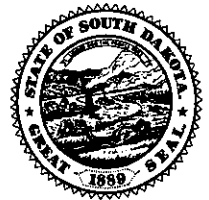
(continued)

2. The well authorized by Permit No. 8497-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. The permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Big Sioux: Sioux Falls aquifer.
4. Water Permit No. 8497-3 authorizes a total annual diversion of 2,600 acre-feet of water.

WATER MANAGEMENT BOARD

By: Eric Gronlund
Eric Gronlund, Chief Engineer
Water Rights Program
Department of Agriculture and Natural Resources

JUL 08 2021
date



8497-3 | 1347-3
4101-3

Report of Examination of Works and/or Application of Water to Beneficial Use For Permit No. 8497-3

I have this day, July 19, 2023, made a thorough examination of the water use system constructed by City of Sioux Falls Water Division, 2100 N Minnesota Ave, Sioux Falls, SD 57104 of Permit No. 8497-3, authorizing the transfer of water authorized under 1347-3 & 4104-3 from Big Sioux : Sioux Falls Aquifer for Municipal purposes, in Minnehaha County.

A. Works used to divert the water:

Well Information: Please see attached well completion report and supporting documents.

- 1) Well Drilling Firm: Ranney Collector Wells
- 2) No. of Wells 1
- 3) Depth(s) _____ feet
- 4) Well log is available Y

B. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by Y
If no, describe:
- 2) Exceptions to compliance are:
- 3)

C. Condition and Location:

1. The system is in good condition with the point(s) of diversion located as follows: WELL LOCATION From the NE corner Sec 9 T102N R49W 2425 ft S & 2492 ft W, Lat 43.65306 Long -96.72194 (SE ¼ NW ¼)
2. The works are capable of diverting and conveying to the place of use 4.927 cu. ft. per second of water and the license should be issued for 4.927 cfs and/or 2600 acre-feet annually.
3. All structures, wells and lands on map Y

D. Comments or other permit(s) associated with the project:

This is a unique permit in that it involves a change in diversion point for Lies 1347-3 and 4101-3. I have been in communication with Mr. Matt Pajl (mpajl@hrgreen.com, 605/221-2669) of the H R Green Company, the engineering company responsible for the project.



Darrell W DeBoer
Water Rights Inspector
DANR, Water Rights Program

Date report completed: 12/08/2023



0 0.1 0.2 0.4 0.6 0.8 Miles



Darrell DeBoer
Water Right Inspector
DANR-Water Rights Program



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**
JOE FOSS BUILDING
523 E. CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

DEC 11 2023

8497-3

City of Sioux Falls Water Division
c/o Chris Myers
2100 N Minnesota Ave
Sioux Falls SD 57104

Dear Mr. Myers:

Enclosed is Water License No. 8497-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if in the future, the owner of an existing well, constructs a replacement well and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

So long as you use the water beneficially, as stated in the Water License, State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

Eric Gronlund, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

STATE OF SOUTH DAKOTA
WATER LICENSE NO. 8497-3

(1) City of Sioux Falls Water Division; 2100 N Minnesota Ave, Sioux Falls SD 57104, made Application No. 8497-3, February 23, 2021, for a water transfer water appropriated under Water Right Nos. 1347-3 & 4101-3 to a new collector well. Water Right Nos. 1347-3 & 4101-3 authorize a combined total of 4.927 cubic feet of water per second and 2,600 acre-feet annually from groundwater, two wells (Big Sioux: Sioux Falls Aquifer), Minnehaha County, South Dakota for municipal purposes. Permit No. 8497-3 was approved May 24, 2021, and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before May 24, 2026, and for the application to beneficial use of water on or before May 24, 2030.

The applicant submitted a "Notice of Completion of Works" form on August 12, 2022, indicating that construction had been completed July 7, 2022, and water had been put to beneficial use August 4, 2022.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 4.927 cubic feet of water per second and 2,600 acre-feet of water for beneficial use. The location of the diversion point is:

- 2,492 ft W & 2,425 ft S of the NE corner Section 9, T102N, R49W (SE ¼ NW ¼)
(Latitude 43.65306 & Longitude -96.72194)

(3) The water appropriated may not exceed the amount of water needed for beneficial use. The water is to be used during the following described annual period: January 1 – December 31.

(4) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use.

(5) Pursuant to South Dakota Water Law 46-5-30.1 City of Sioux Falls Water Division, the holder and/or owner of Water Right No. 8497-3 is issued a license to appropriate water, the right to use 4.927 cubic feet of water per second and 2,600 acre-feet annually from groundwater, one well (Big Sioux: Sioux Falls Aquifer), with priority dates of April 8, 1957 for 1.0 cfs & 724 acre-feet (under Water Right No. 4101-3) and January 10, 1967 for 3.927 cfs & 1,876 acre-feet (under Water Right No. 1347-3), from the location specified in (2) of this license for municipal purposes.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 8497-3 and subject to the following qualifications:

1. The well approved under this Water Right will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Water Right shall control their withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

continued

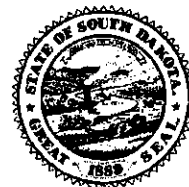
2. The well authorized under this Water Right No. 8497-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28. *(The well was completed in 2022 by Ranney Collector Wells. A copy of the well completion report is on file with the Water Rights Program.)*
3. The Water Right holder shall report to the Chief Engineer annually the amount of water withdrawn from the Big Sioux: Sioux Falls Aquifer.
4. Water Right No. 8497-3 authorizes a total annual diversion of 2,600 acre-feet of water.

Eric Gronlund

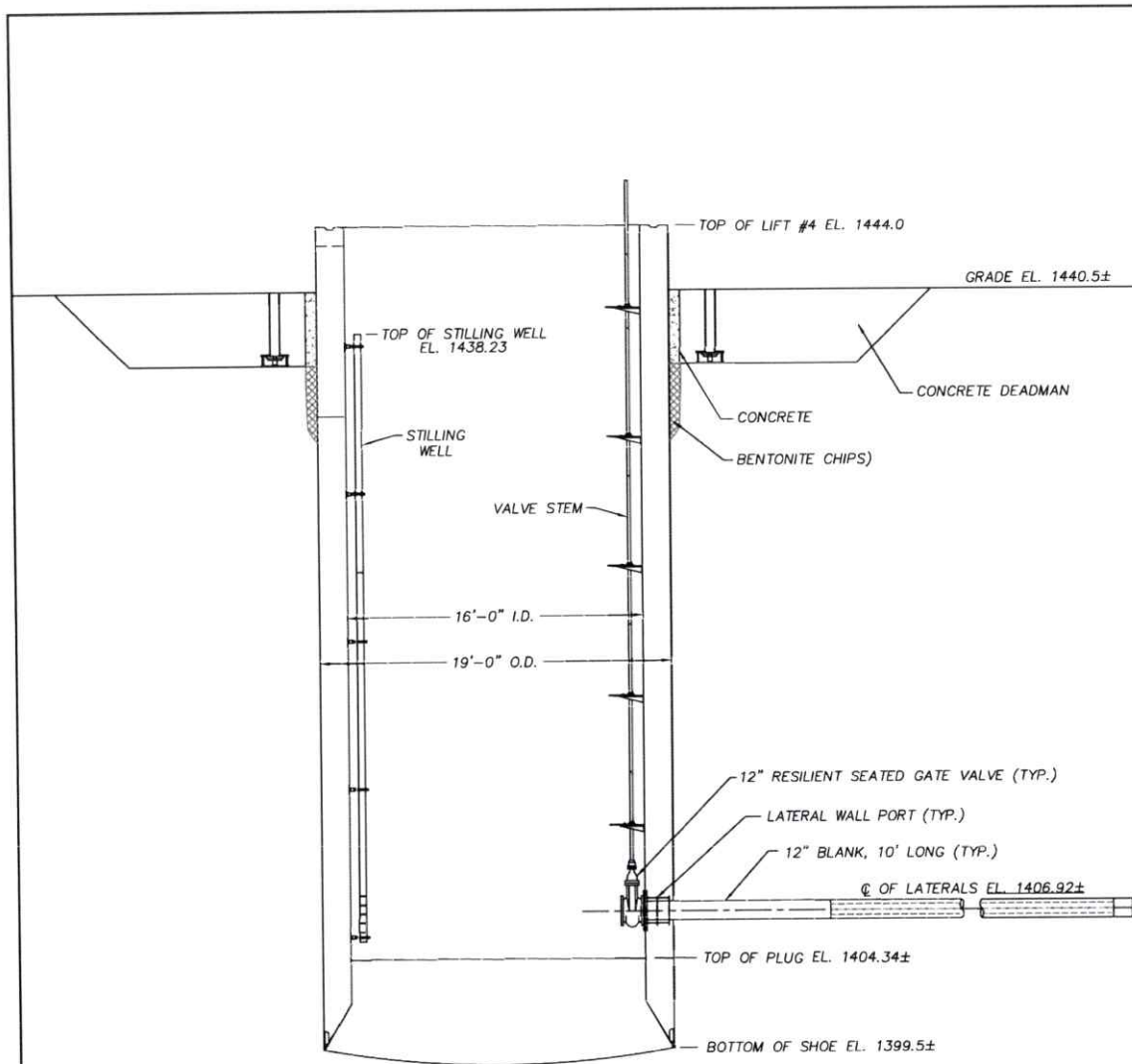
Eric Gronlund, Chief Engineer
Water Rights Program
Department of Agriculture and Natural Resources

DEC 11 2023

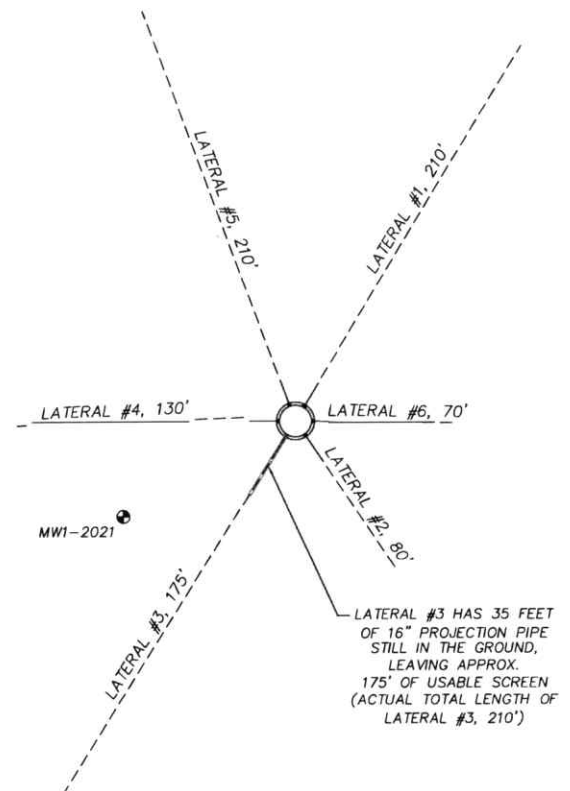
date



Date: 11-2-23



VERTICAL SECTION THRU CAISSON
SCALE: N.T.S.



PLAN VIEW
SCALE: 1"=60'



LEGEND:

● OBSERVATION WELL

Layne
A GRANITE COMPANY
RANNEY COLLECTOR WELLS
6360 HUNTLEY ROAD
COLUMBUS, OHIO 43229
(614) 888-6263 / FAX (614) 888-9208

SECTION AND PLAN VIEW
COLLECTOR WELL 72
47427 257th ST
RENNER, SOUTH DAKOTA 57055

FILE NAME:
1130293-06
PROJECT #:
1130293

DATE:
4/27/22
SCALE:
AS NOTED

FIGURE
1

TABLE 1 (continued)
Collector Well 72 Well Design Summary
City of Sioux Falls, South Dakota

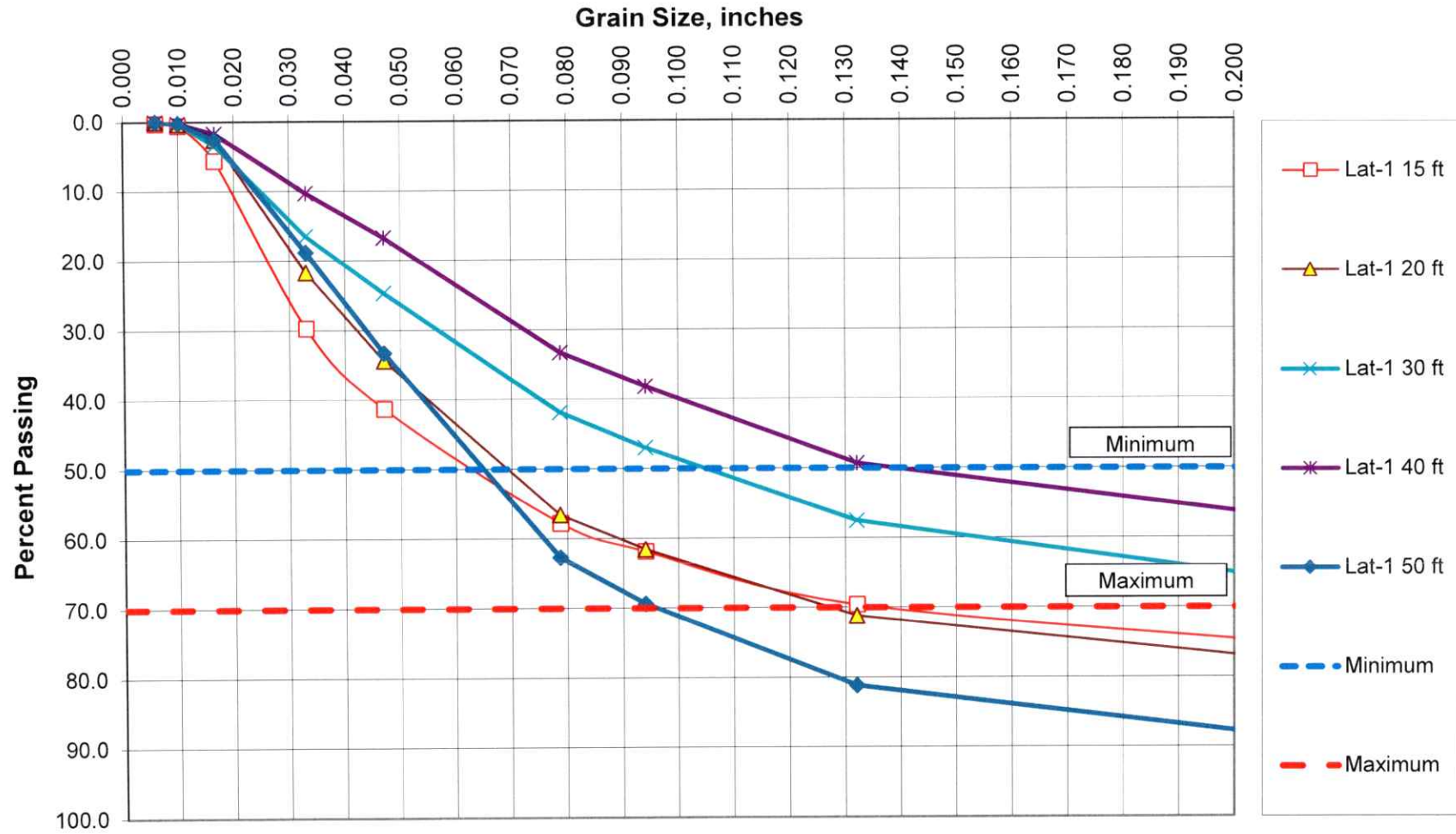
SCREEN MATERIAL: 12.75-inch OD, 12-inch ID, Type 130 Wire-Wound Stainless Steel (wire width 0.130-inch)

LATERAL SCREEN SLOT SIZE PLACEMENT (feet from inside caisson wall)

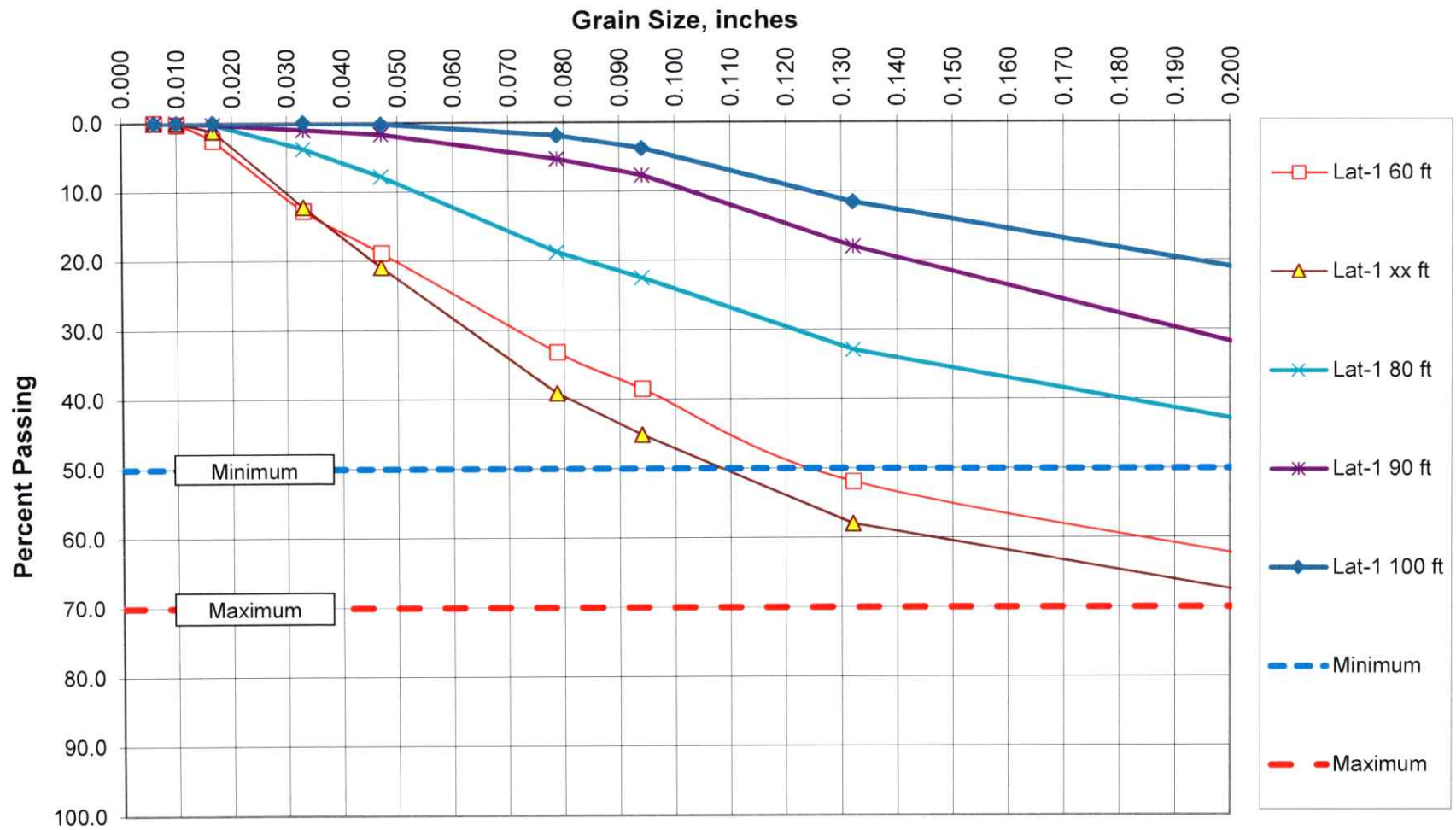
Lateral Number	SCREEN SLOT SIZE (inches)								
	0.030	0.040	0.050	0.060	0.080	0.100	0.120	0.125	0.150
1			180-190 190-200 200-210	50-60 170-180	10-20 20-30 40-50 60-70 160-170	30-40 70-80 130-140 140-150 150-160		80-90 120-130	90-100 100-110 110-120
2			70-80	50-60 60-70	10-20 20-30	30-40 40-50			
3	200-210		170-180 190-200	150-160 160-170 180-190	130-140 140-150	35-40 50-60 120-130		40-50 60-70 90-100 110-120	70-80 80-90 100-110
4			10-20 50-60	40-50 60-70 110-120 120-130	20-30 100-110	30-40 70-80 90-100		80-90	
5	160-170	110-120		30-40 40-50 70-80 100-110	20-30 50-60 60-70 90-100 120-130 150-160 170-180	10-20 80-90	130-140 140-150 180-190 190-200 200-210		
6				60-70	30-40 40-50	10-20 50-60		20-30	
Total Length	20	10	80	160	200	165	50	80	60

TOTAL SCREEN OPEN AREA (Adjusted for couplings and blank sections): 1,023 ft²

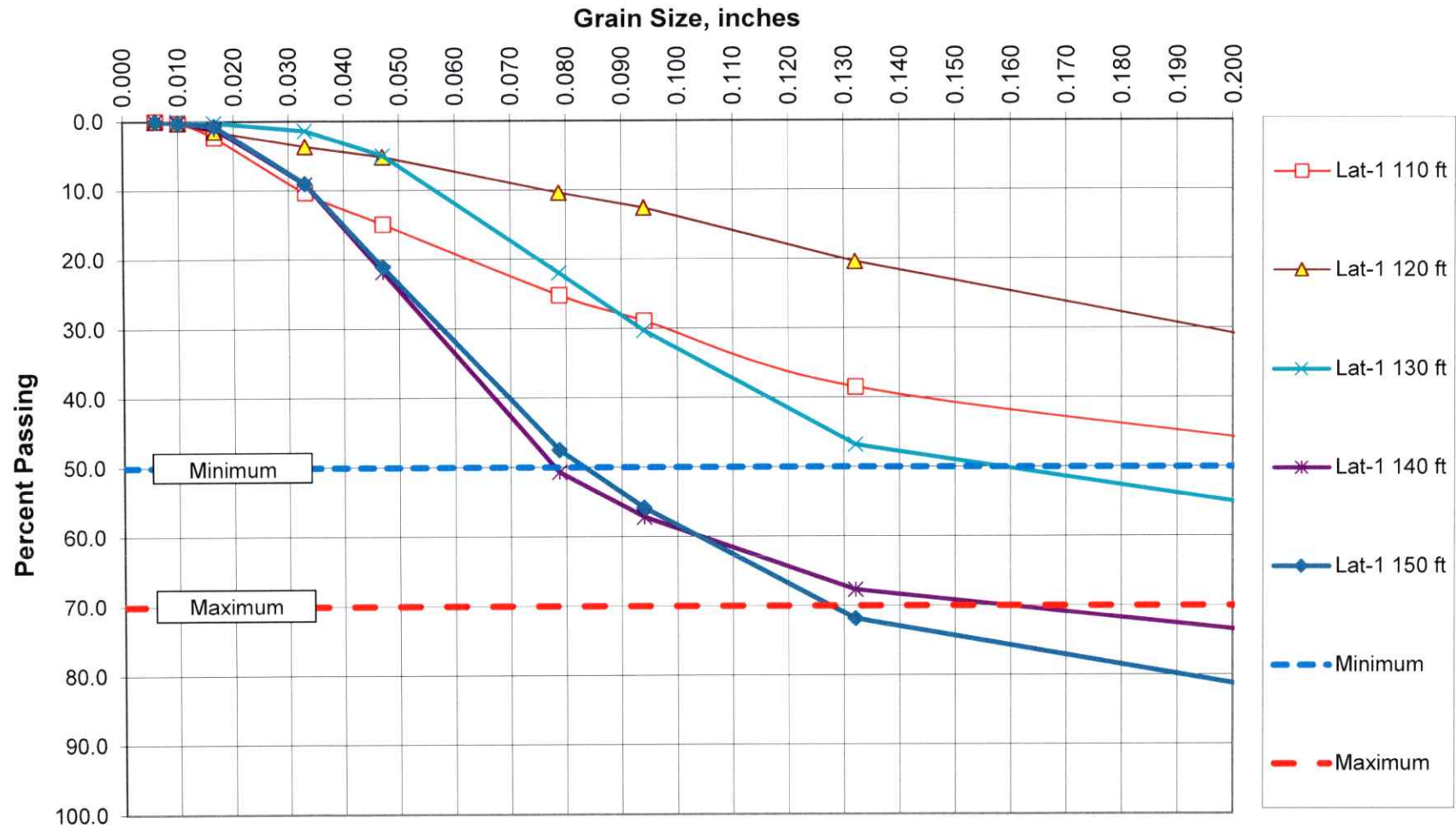
**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 1**



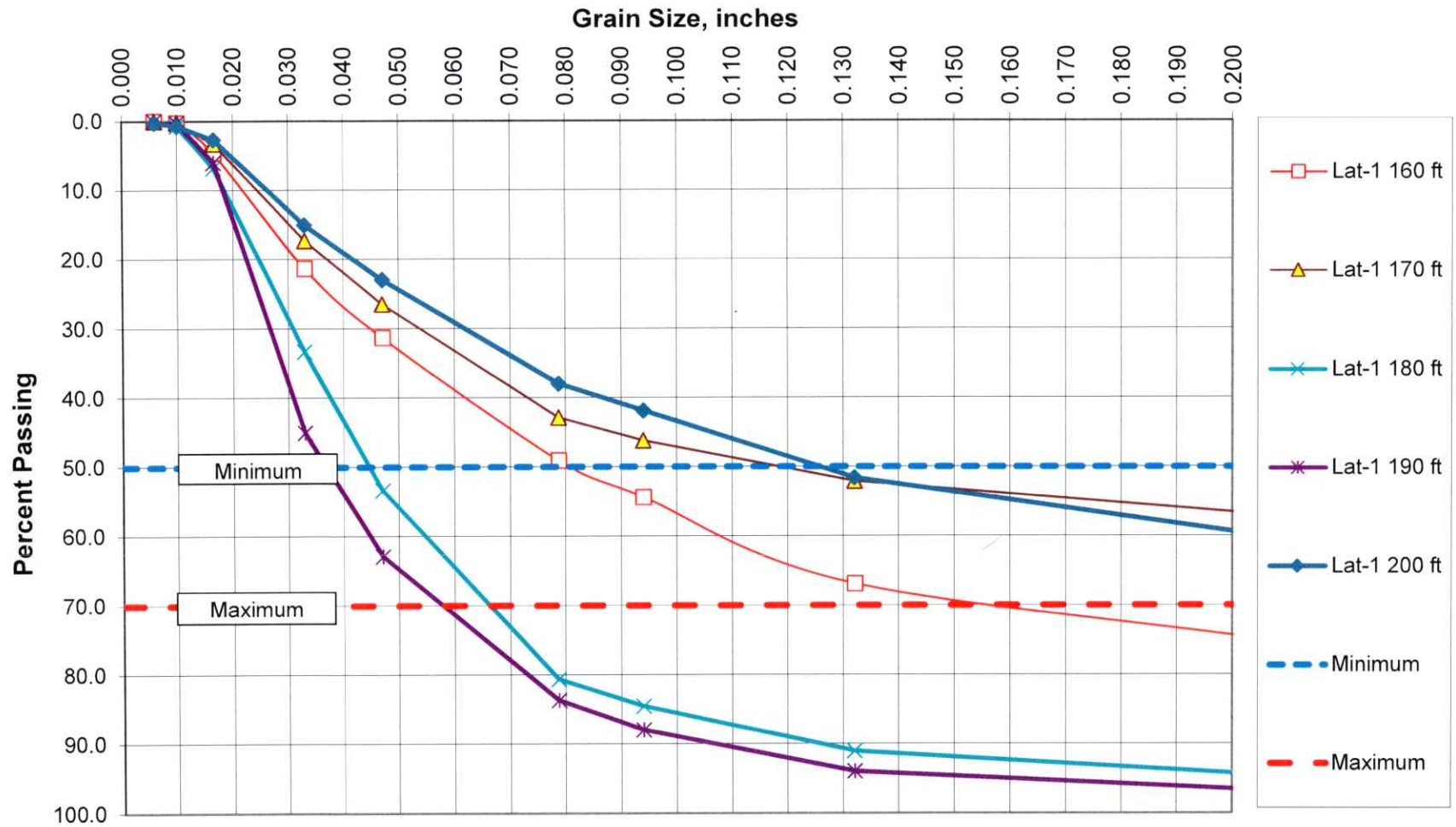
Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 1



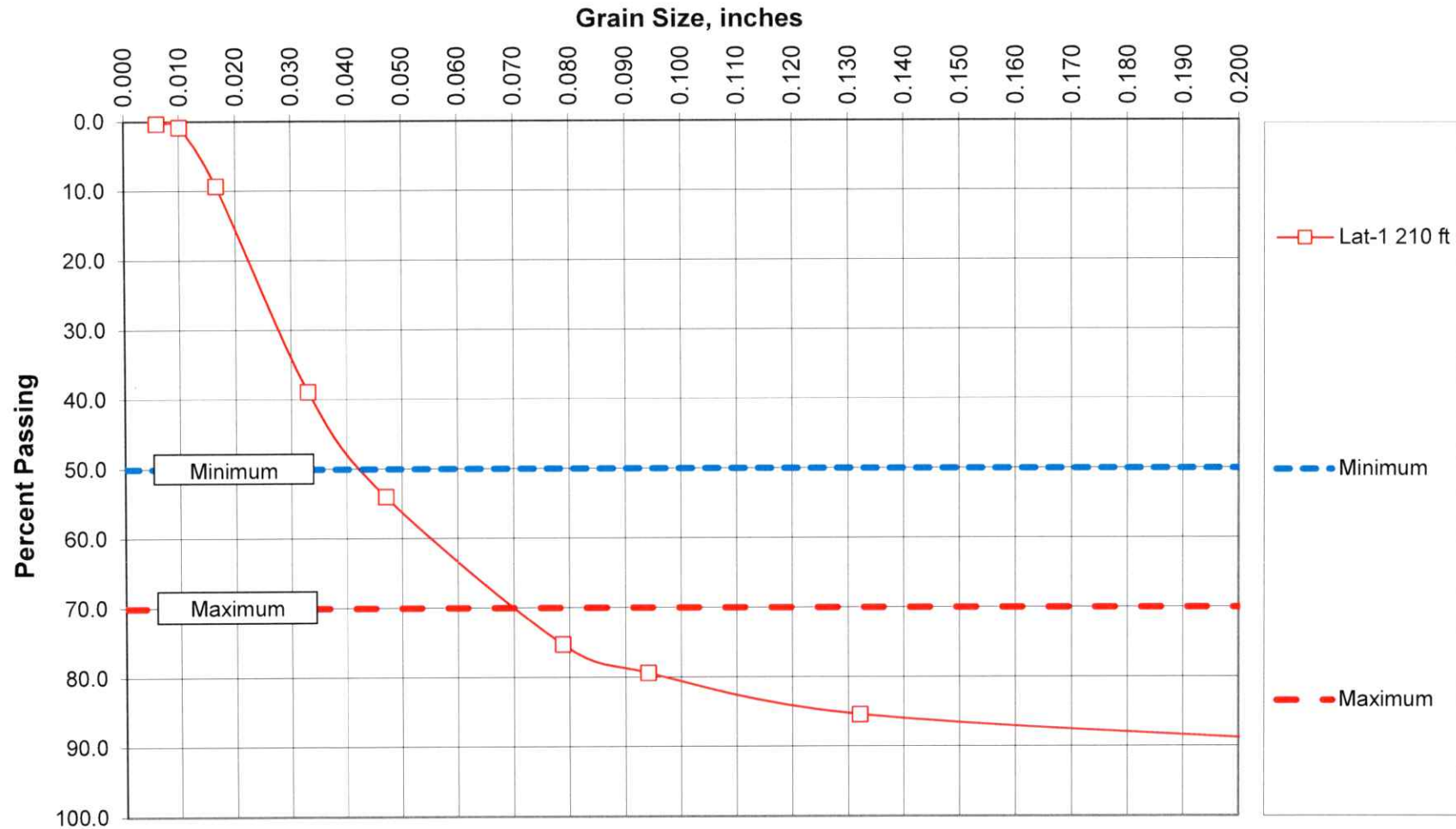
Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 1



Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 1



Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 1



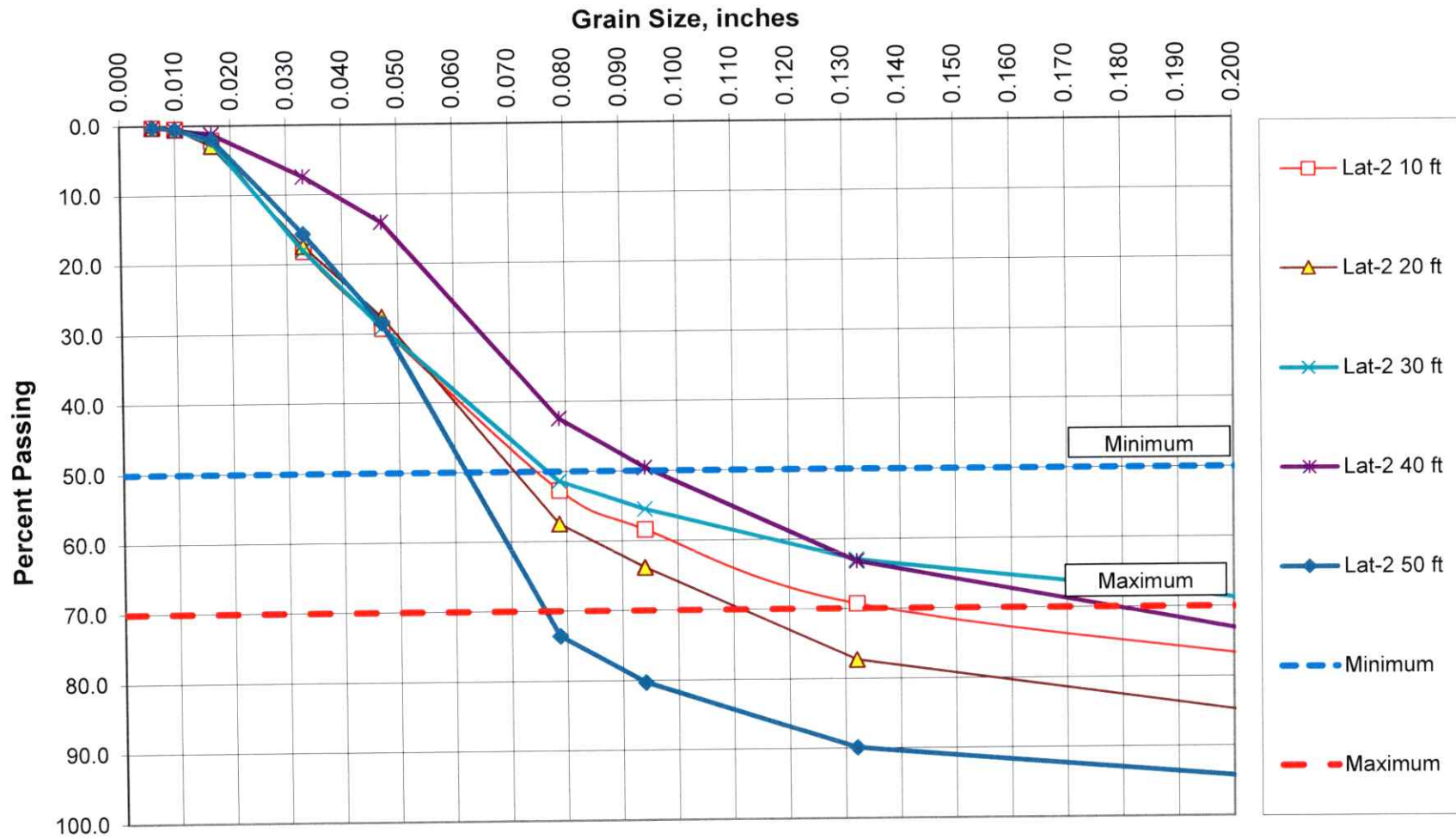
Collector Well
Recommended Screen Slot Distribution

Client:	Sioux Falls, SD	
Well ID:	Collector Well 72	
Lateral Number:	1	
Lateral Length:	210	feet
Screen Length:	200	feet
Date Completed:	11/12/2021	

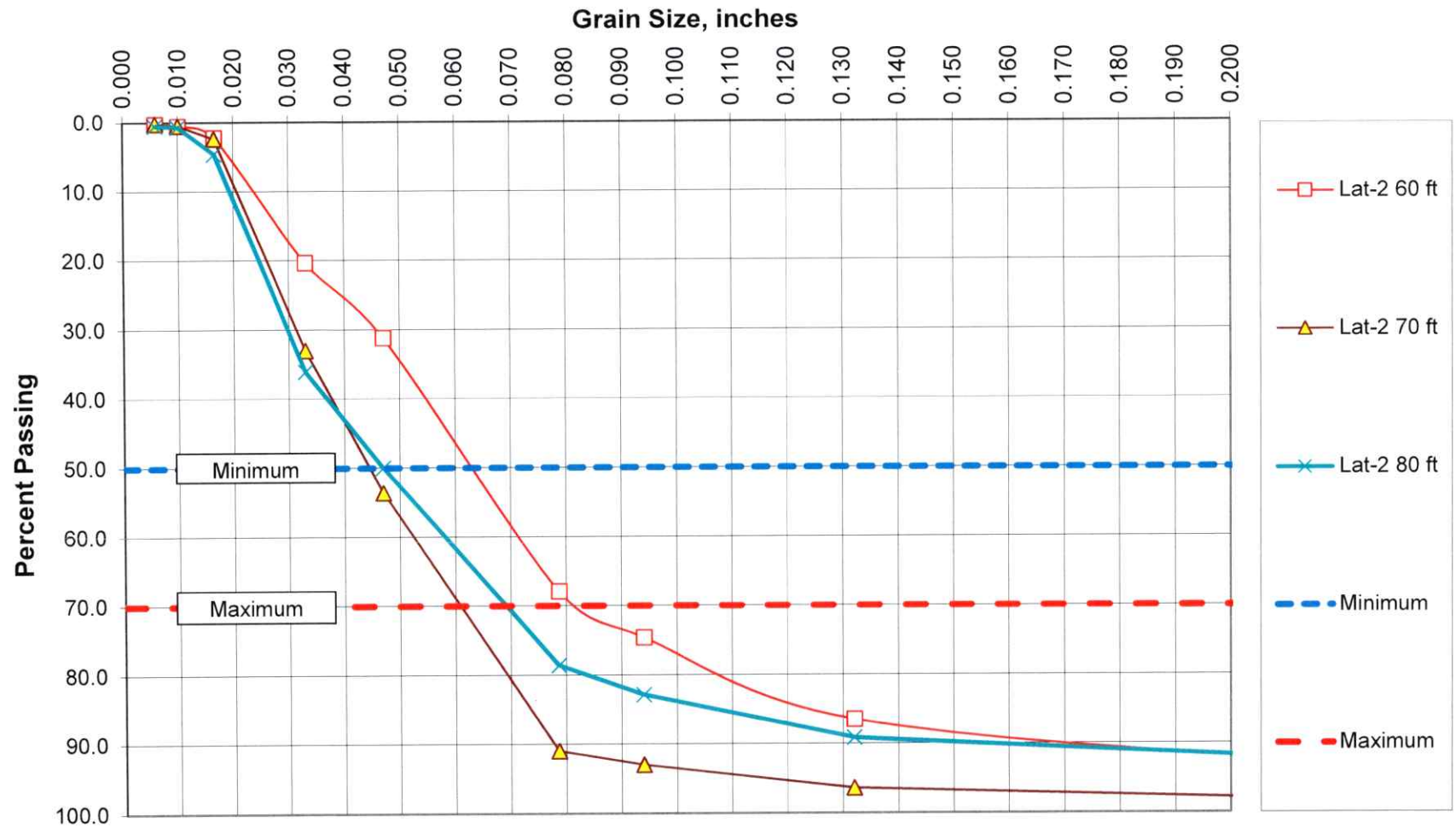
Screen slot distribution		
Distance from Inside Wall of Caisson (feet)	Screen Slot Size (1000 ^{ths} inch)	
0-10	Blank	
10-20	80	slot
20-30	80	slot
30-40	100	slot
40-50	80	slot
50-60	60	slot
60-70	80	slot
70-80	100	slot
80-90	125	slot
90-100	150	slot
100-110	150	slot
110-120	150	slot
120-130	125	slot
130-140	100	slot
140-150	100	slot
150-160	100	slot
160-170	80	slot
170-180	60	slot
180-190	50	slot
190-200	50	slot
200-210	50	slot

Screen Size Utilization		
Screen Slot Size (1000 ^{ths} inch)	Number of 10-foot Section	Length per Slot Size (feet)
Blank	1	10
20	0	0
30	0	0
40	0	0
50	3	30
60	2	20
80	5	50
100	5	50
125	2	20
150	3	30
Total	21	210

**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 2**



**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 2**



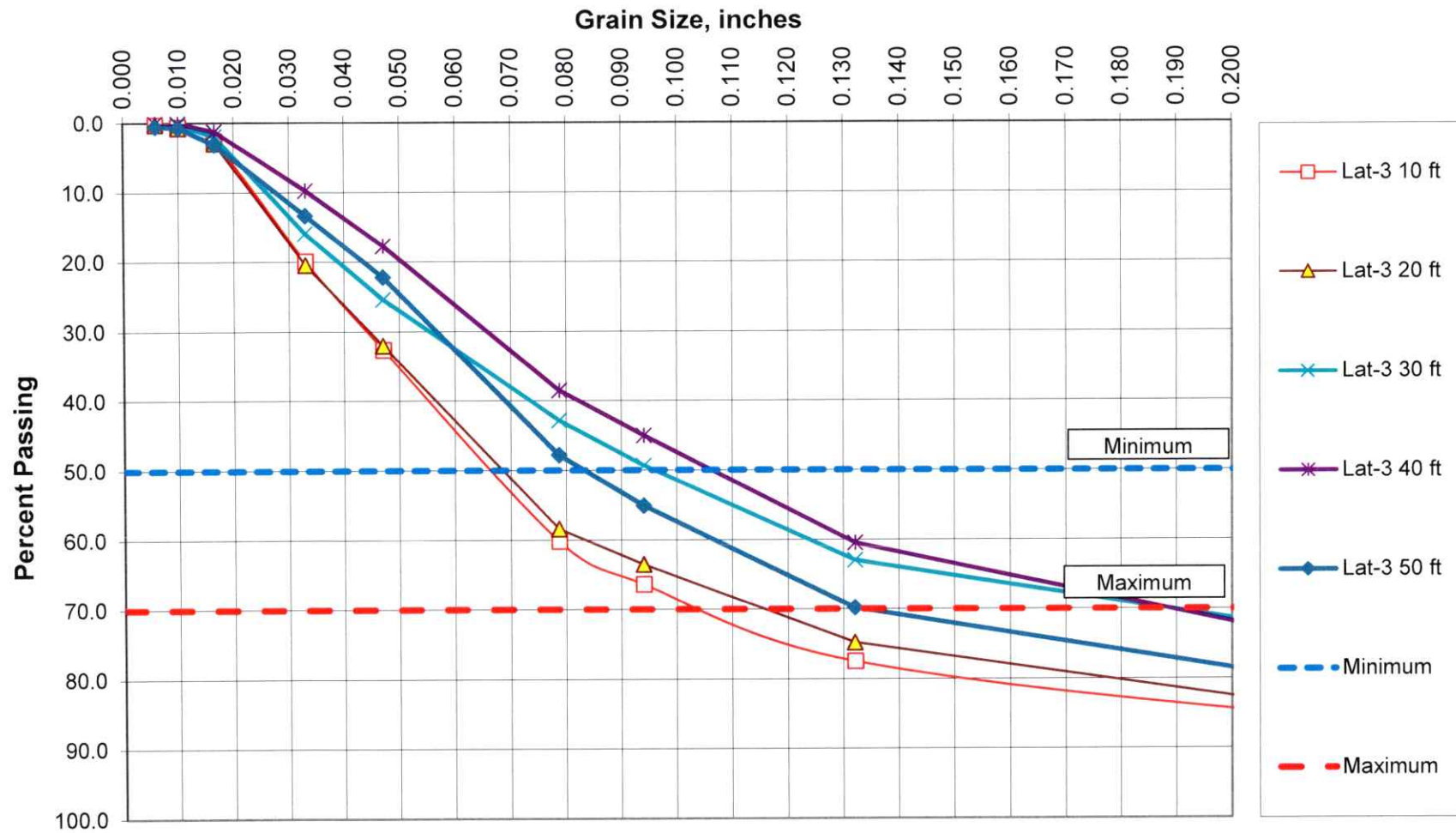
Collector Well
Recommended Screen Slot Distribution

Client:	Sioux Falls, SD	
Well ID:	Collector Well 72	
Lateral Number:	2	
Lateral Length:	80	feet
Screen Length:	70	feet
Date Completed:	12/3/2021	

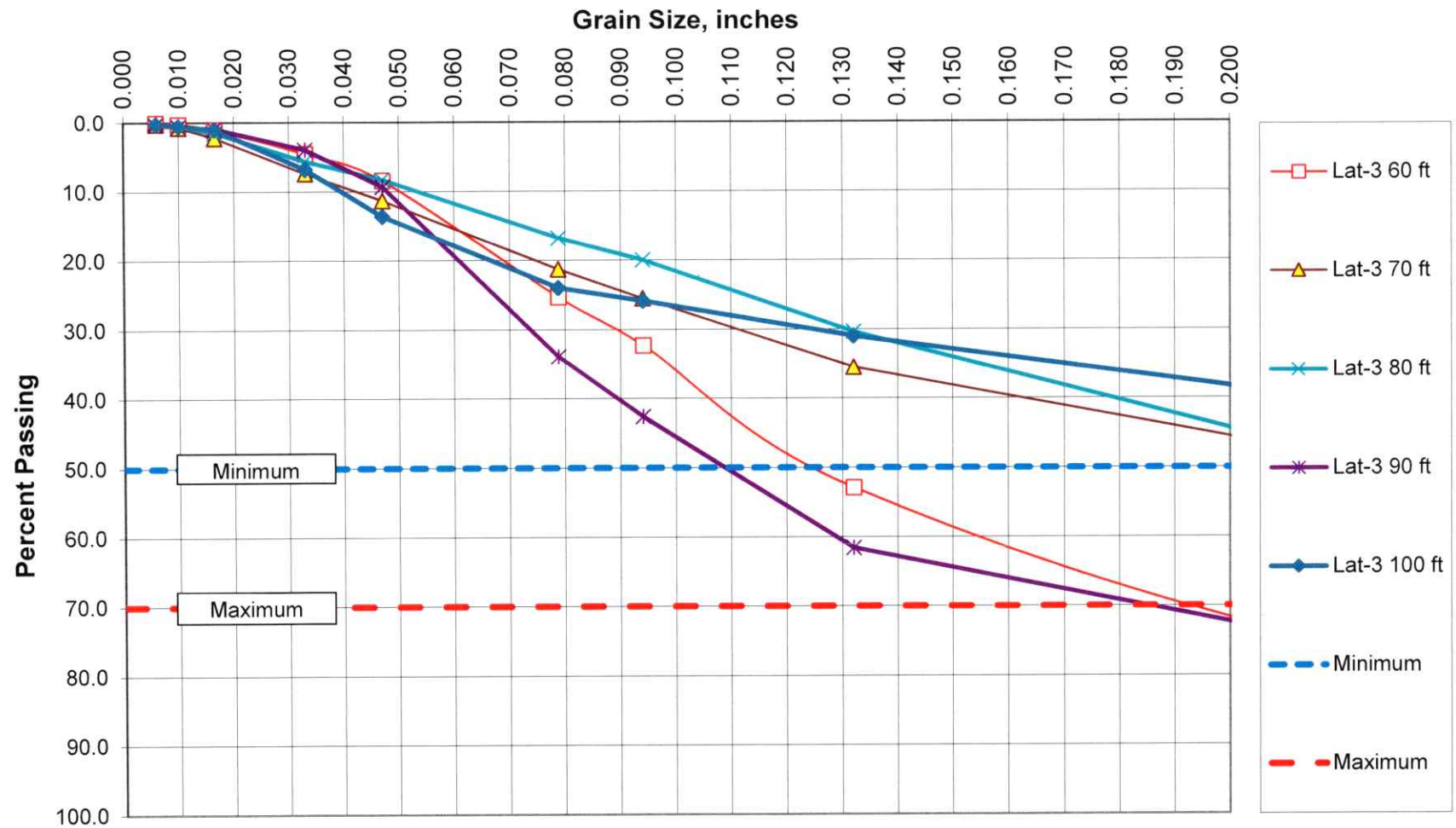
Screen slot distribution		
Distance from Inside Wall of Caisson (feet)	Screen Slot Size (1000 ^{ths} inch)	
0-10	Blank	
10-20	80	slot
20-30	80	slot
30-40	100	slot
40-50	100	slot
50-60	60	slot
60-70	60	slot
70-80	50	slot
80-90		slot
90-100		slot
100-110		slot
110-120		slot
120-130		slot
130-140		slot
140-150		slot
150-160		slot
160-170		slot
170-180		slot
180-190		slot
190-200		slot
200-210		slot

Screen Size Utilization		
Screen Slot Size (1000 ^{ths} inch)	Number of 10-foot Section	Length per Slot Size (feet)
Blank	1	10
20	0	0
30	0	0
40	0	0
50	1	10
60	2	20
80	2	20
100	2	20
125	0	0
150	0	0
Total	8	80

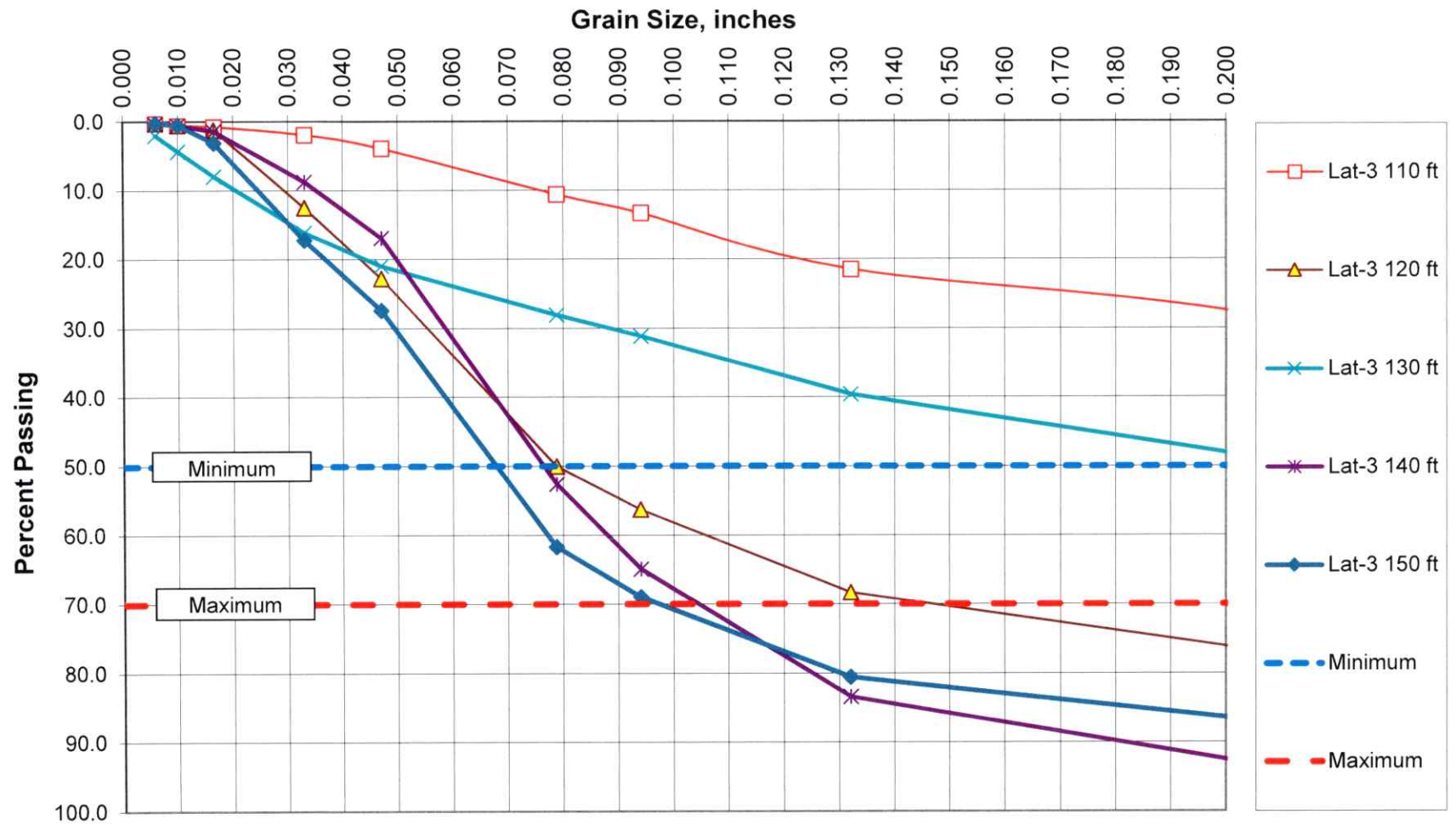
**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 3**



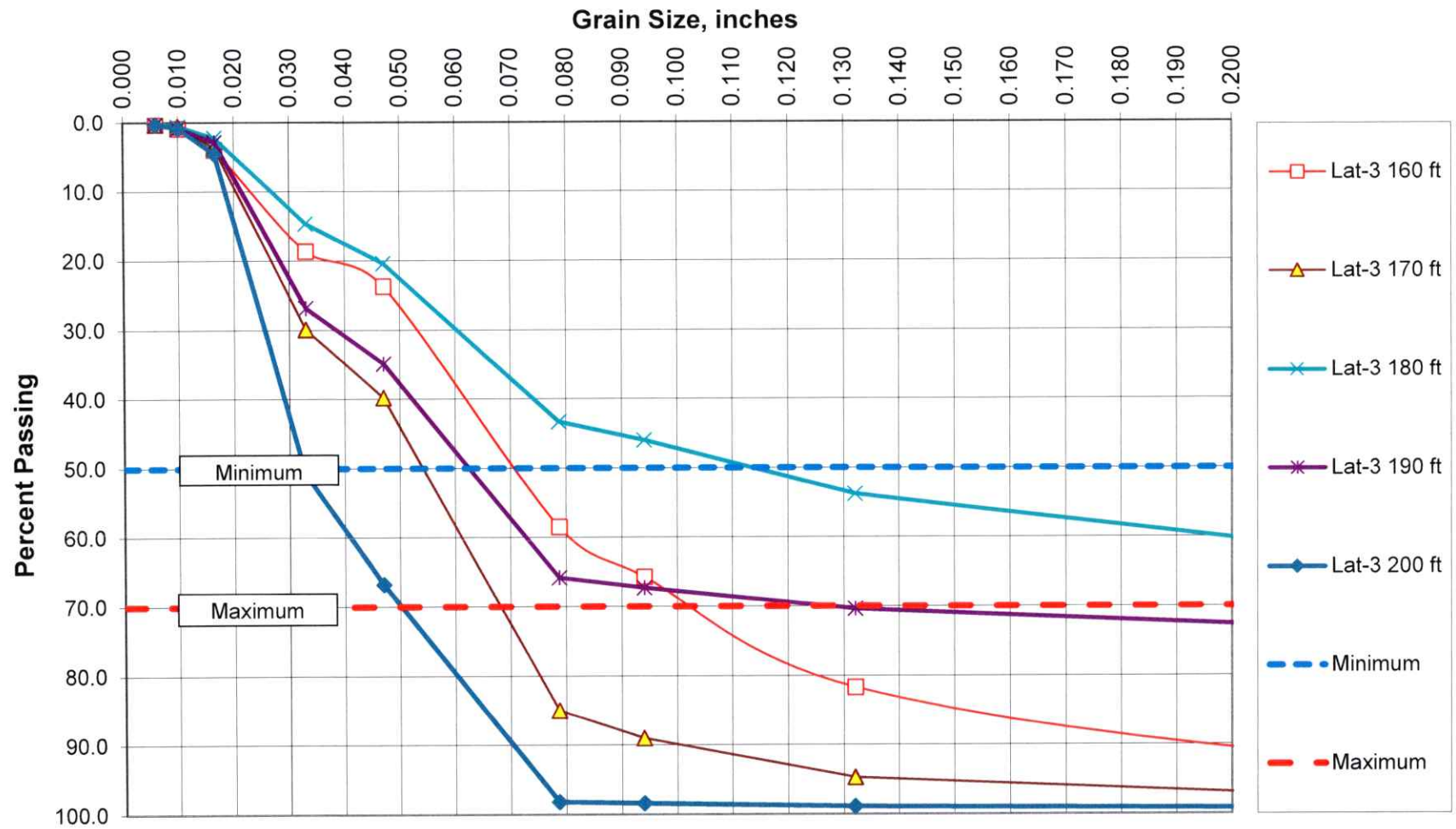
**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 3**



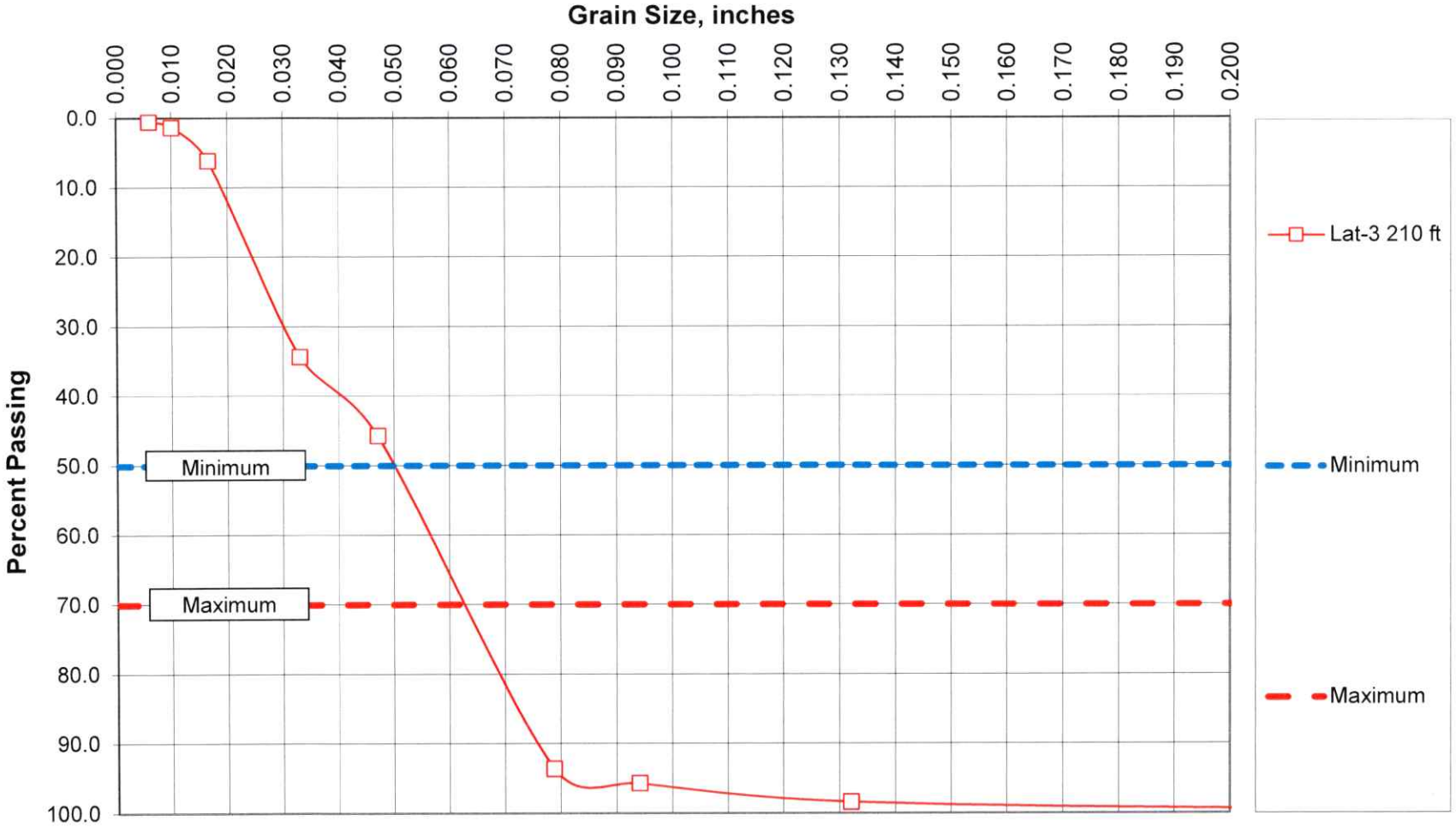
Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 3



Grain Size Analyses
Sioux Falls, SD
Well 72
Lateral 3



Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 3



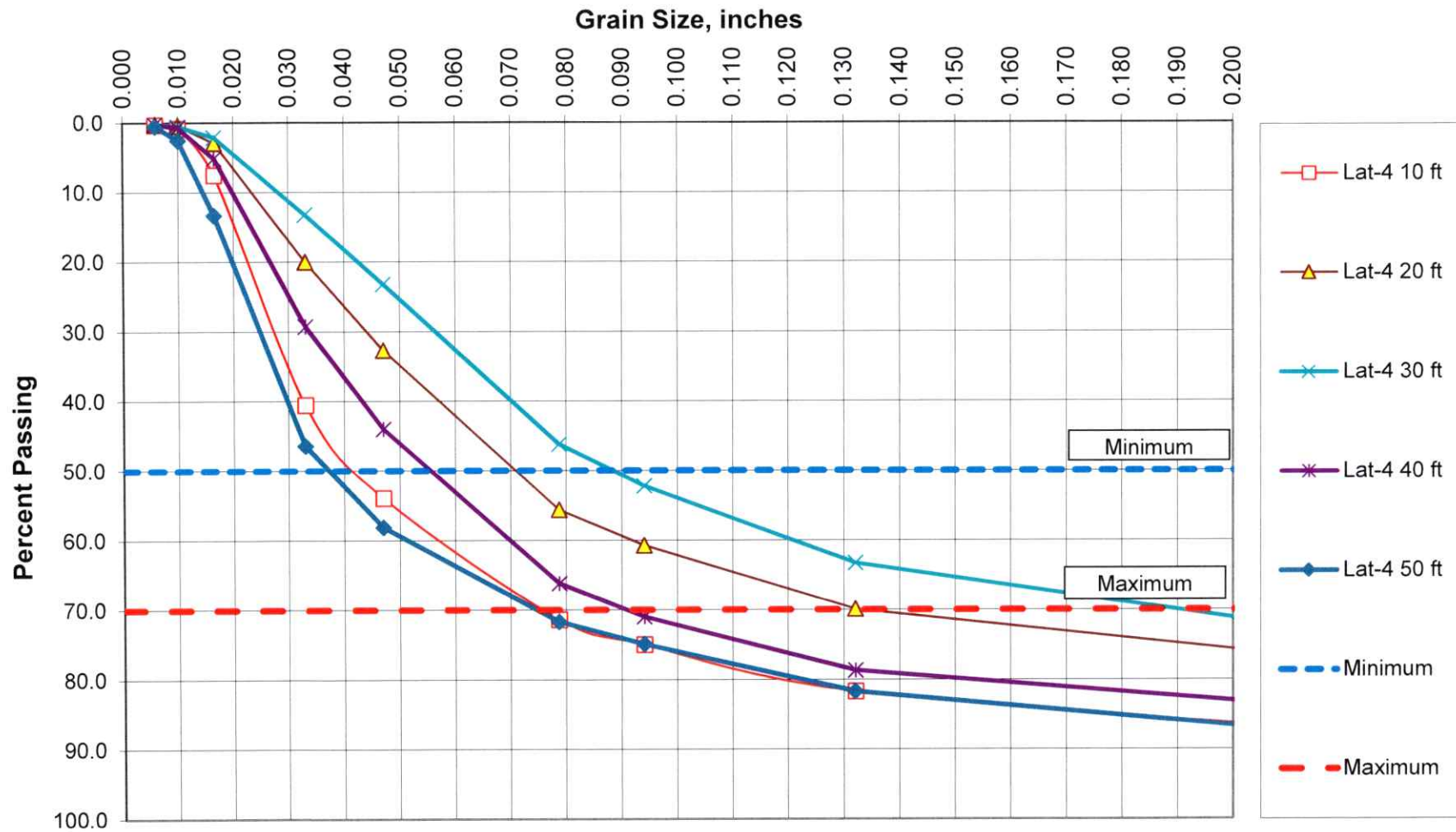
Collector Well
Recommended Screen Slot Distribution

Client:	Sioux Falls, SD
Well ID:	Collector Well 72
Lateral Number:	3
Lateral Length:	feet
Screen Length:	feet
Date Completed:	12/9/2021

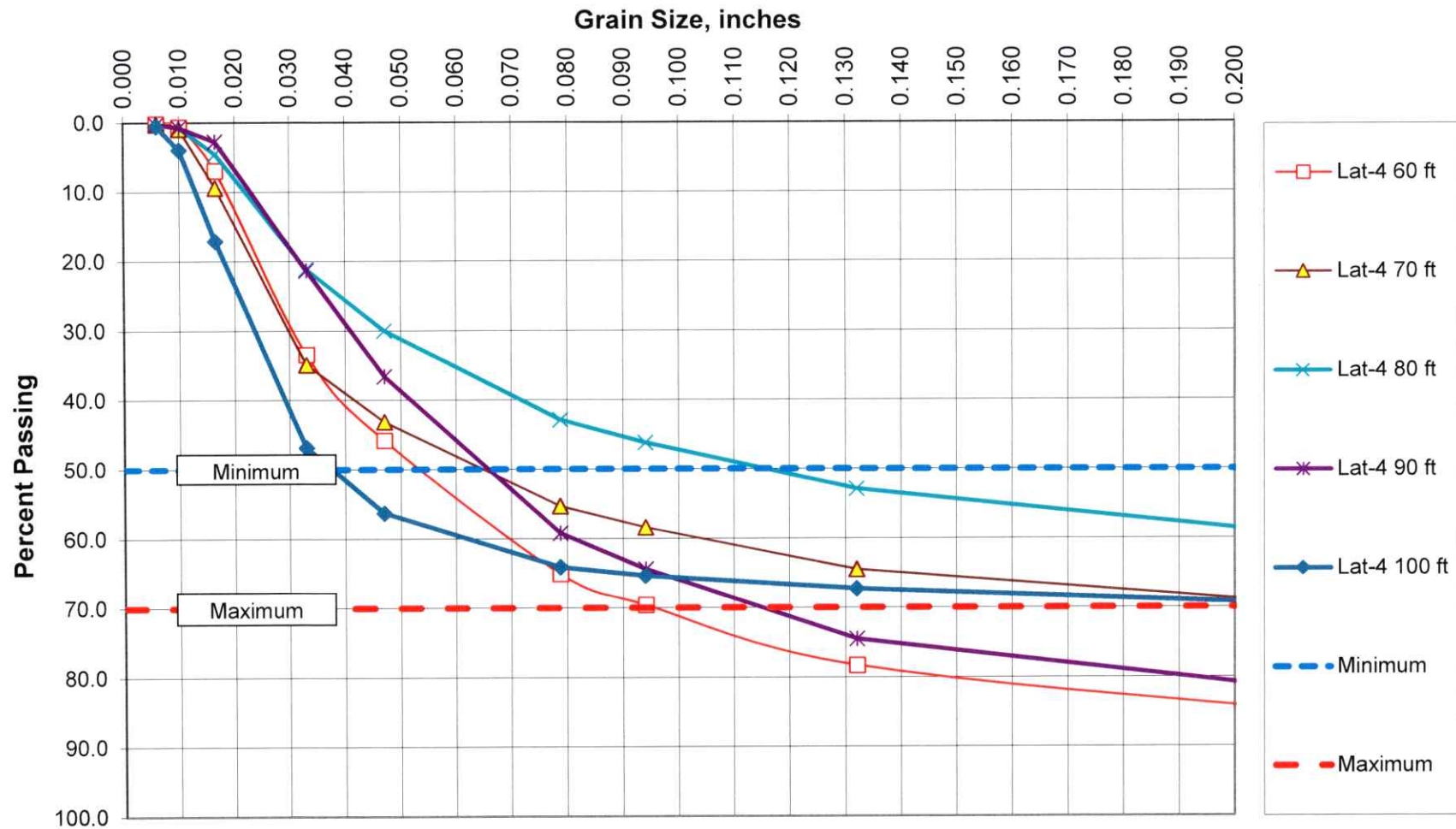
Screen slot distribution		
Distance from Inside Wall of Caisson (feet)	Screen Slot Size (1000 ^{ths} inch)	
0-10	Blank	
10-20	60	slot
20-30	80	slot
30-40	100	slot
40-50	125	slot
50-60	100	slot
60-70	125	slot
70-80	150	slot
80-90	150	slot
90-100	125	slot
100-110	150	slot
110-120	125	slot
120-130	100	slot
130-140	80	slot
140-150	80	slot
150-160	60	slot
160-170	60	slot
170-180	50	slot
180-190	60	slot
190-200	50	slot
200-210	30	slot

Screen Size Utilization		
Screen Slot Size (1000 ^{ths} inch)	Number of 10-foot Section	Length per Slot Size (feet)
Blank	1	10
20	0	0
30	1	10
40	0	0
50	2	20
60	4	40
80	3	30
100	3	30
125	4	40
150	3	30
Total	21	210

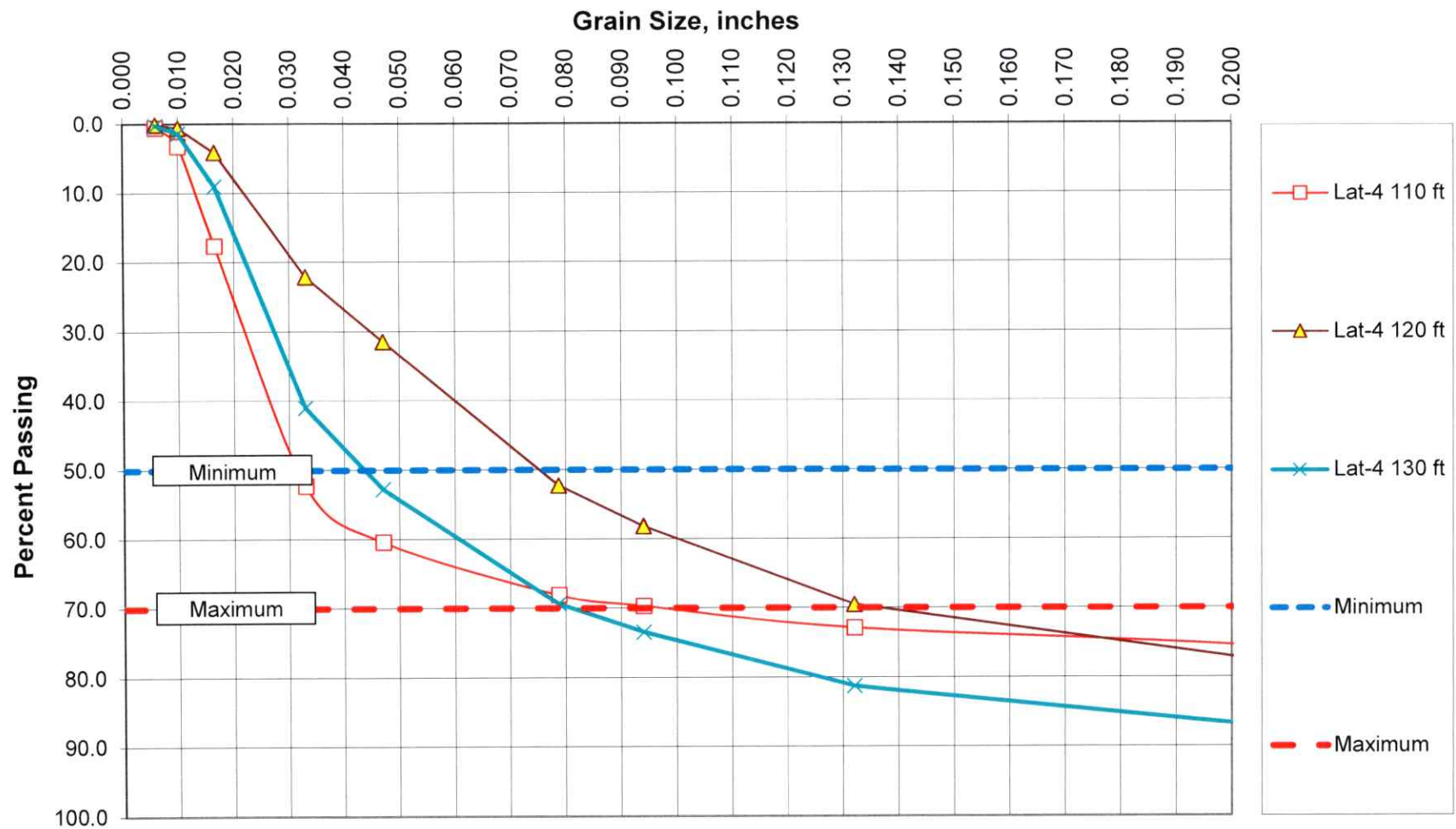
**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 4**



**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 4**



**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 4**



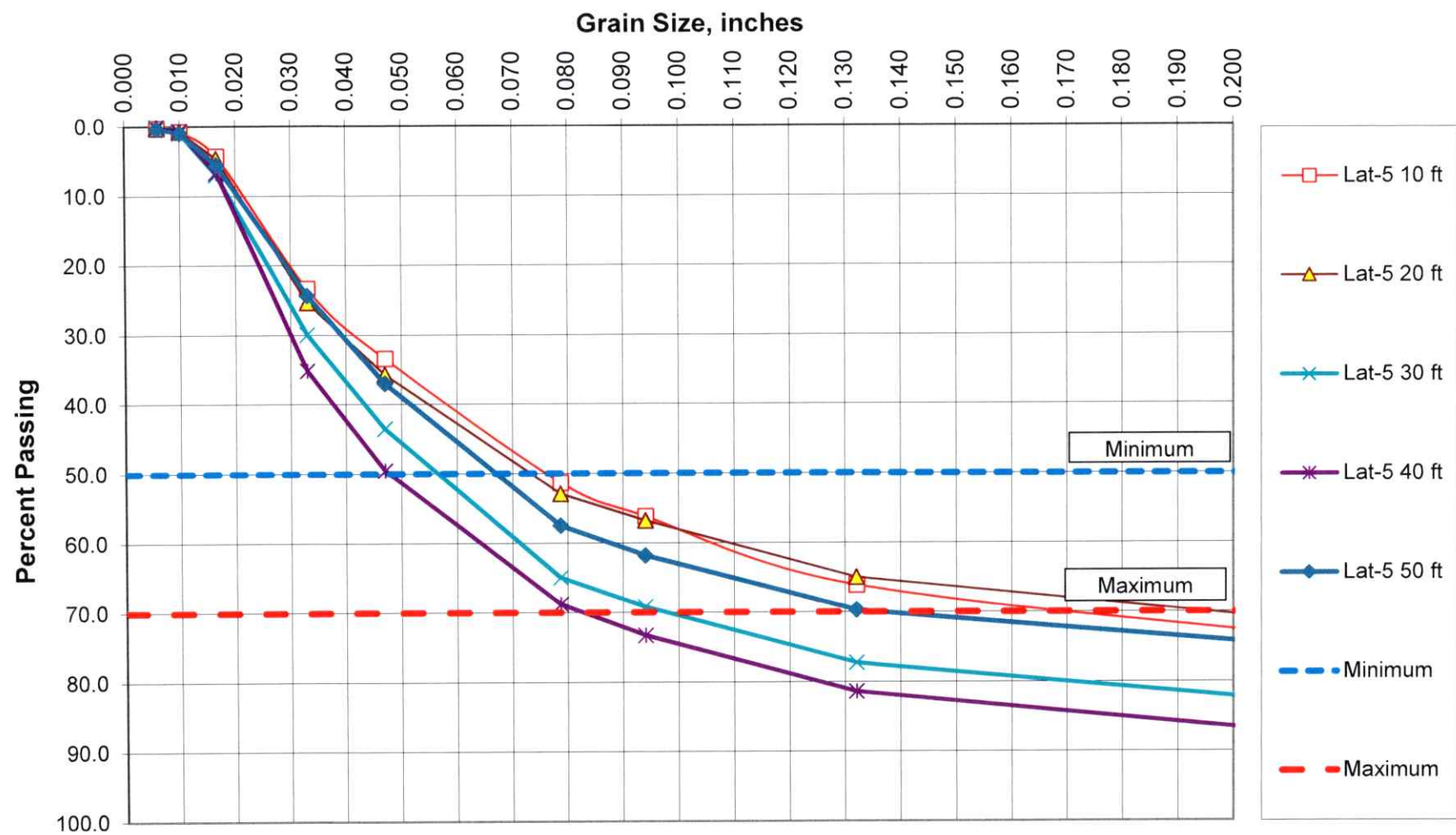
Collector Well
Recommended Screen Slot Distribution

Client:	Sioux Falls, SD	
Well ID:	Collector Well 72	
Lateral Number:	4	
Lateral Length:	130	feet
Screen Length:	120	feet
Date Completed:	1/5/2022	

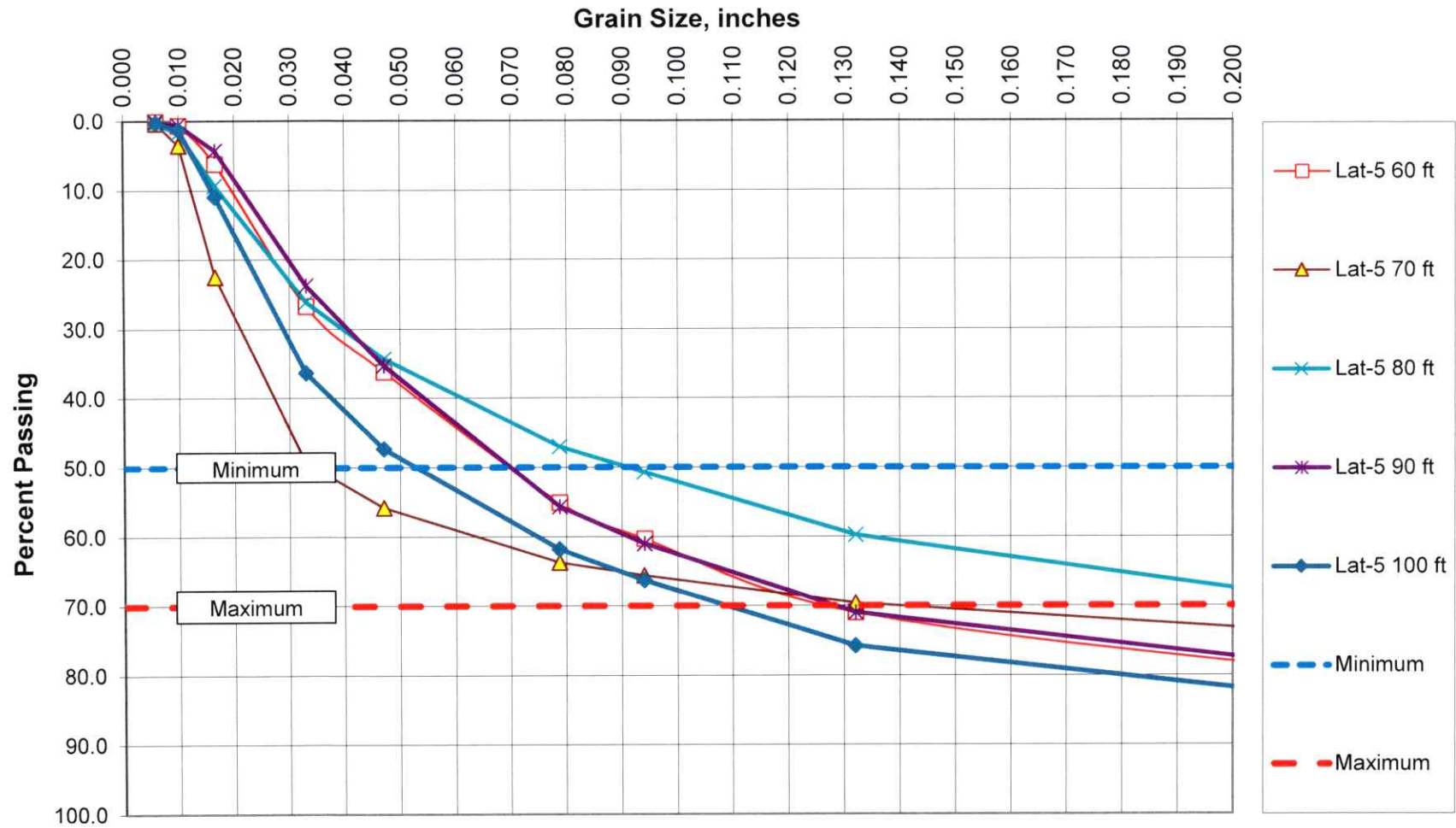
Screen slot distribution		
Distance from Inside Wall of Caisson (feet)	Screen Slot Size (1000 ^{ths} inch)	
0-10	Blank	
10-20	50	slot
20-30	80	slot
30-40	100	slot
40-50	60	slot
50-60	50	slot
60-70	60	slot
70-80	100	slot
80-90	125	slot
90-100	100	slot
100-110	80	slot
110-120	60	slot
120-130	60	slot
130-140		slot
140-150		slot
150-160		slot
160-170		slot
170-180		slot
180-190		slot
190-200		slot
200-210		slot

Screen Size Utilization		
Screen Slot Size (1000 ^{ths} inch)	Number of 10-foot Section	Length per Slot Size (feet)
Blank	1	10
20	0	0
30	0	0
40	0	0
50	2	20
60	4	40
80	2	20
100	3	30
125	1	10
150	0	0
Total	13	130

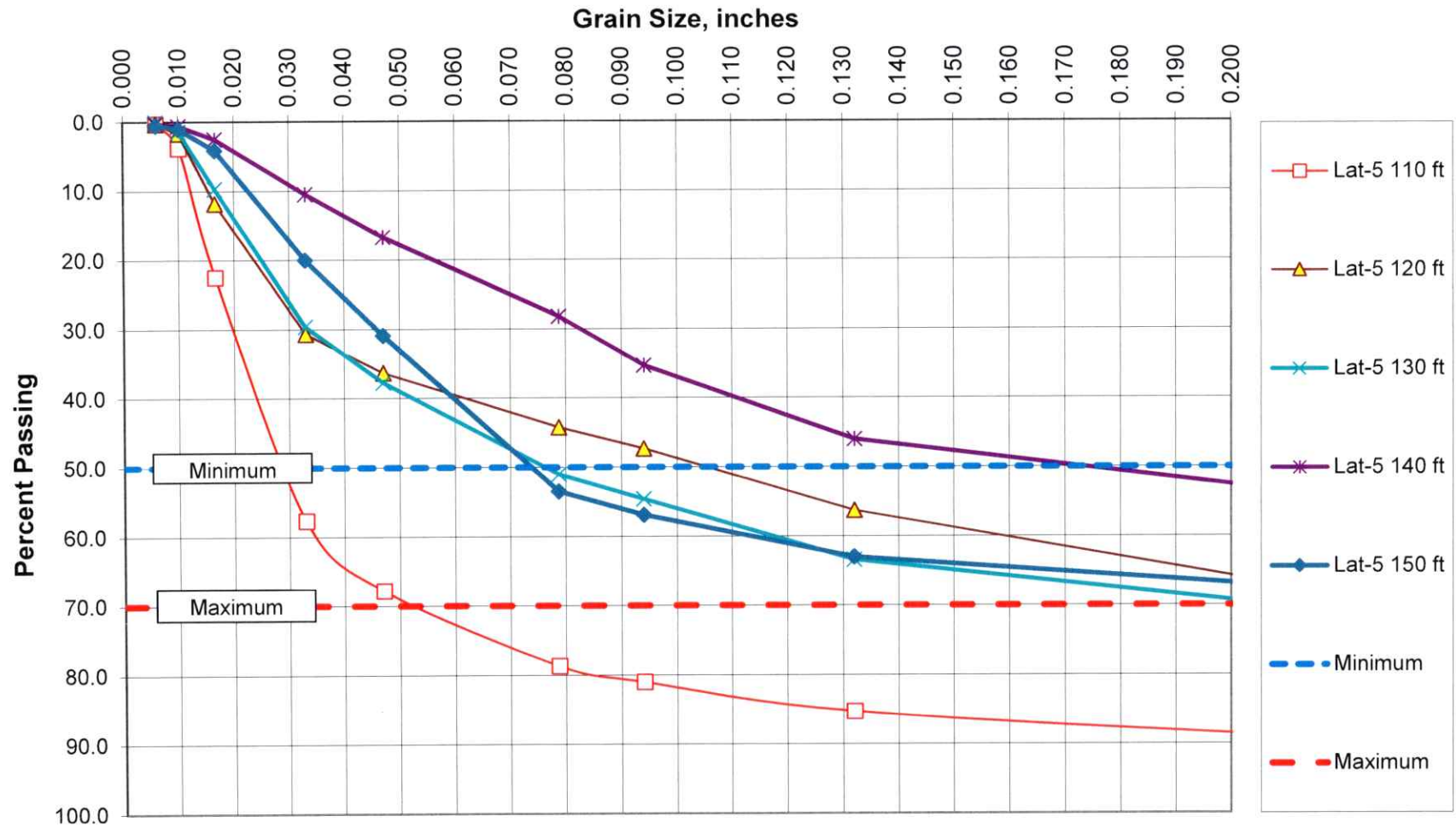
**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 5**



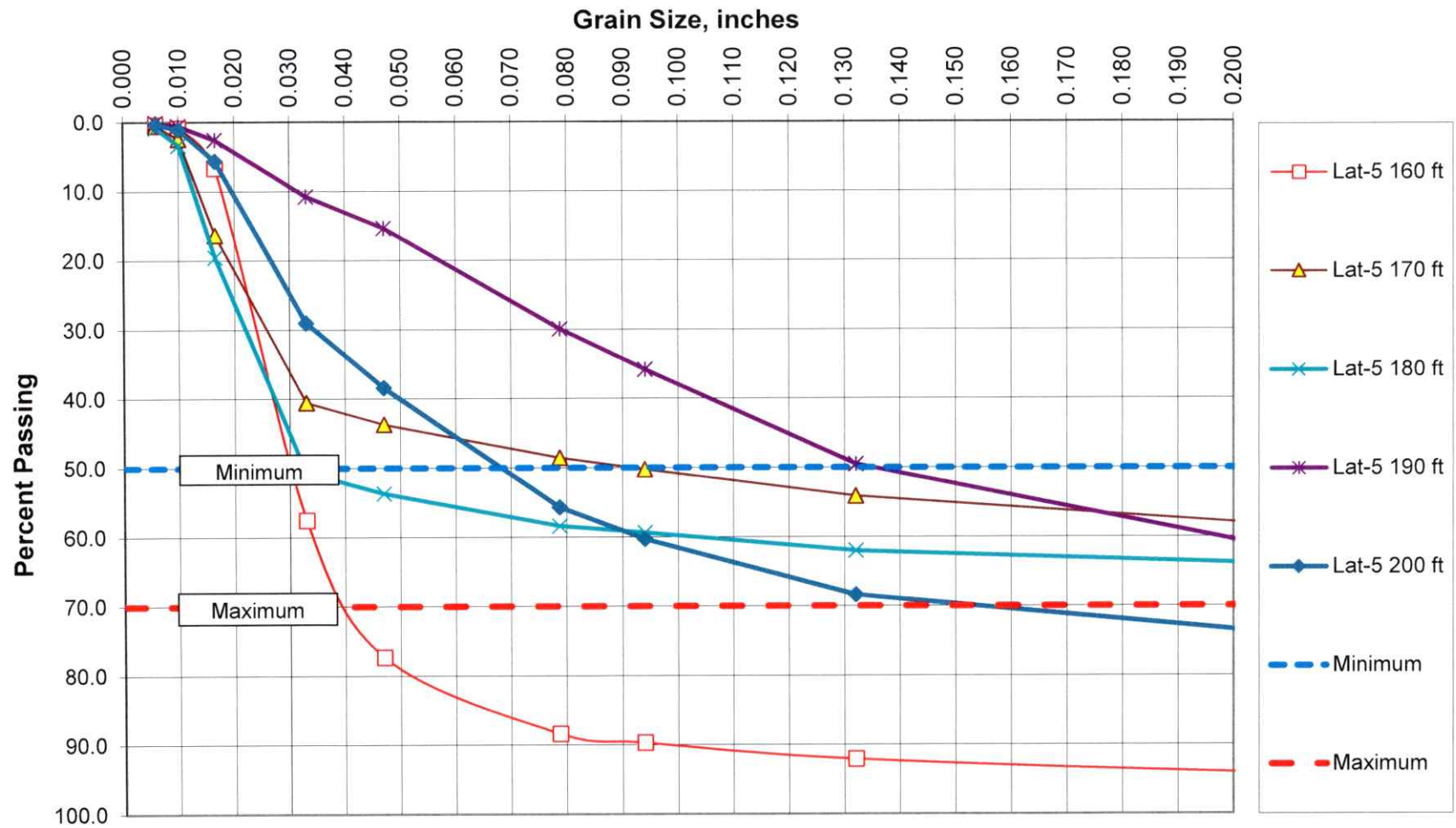
**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 5**



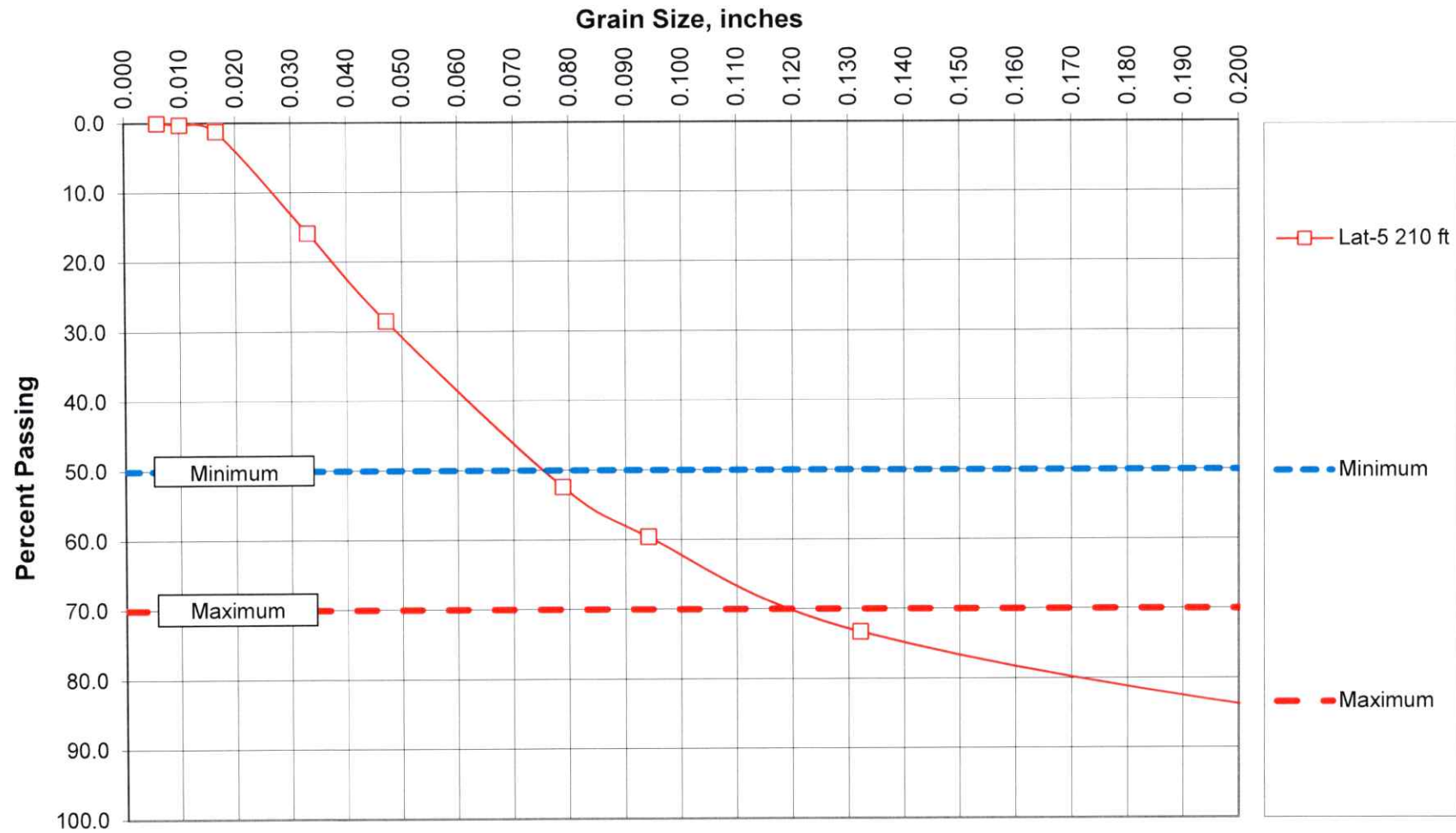
**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 5**



**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 5**



Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 5



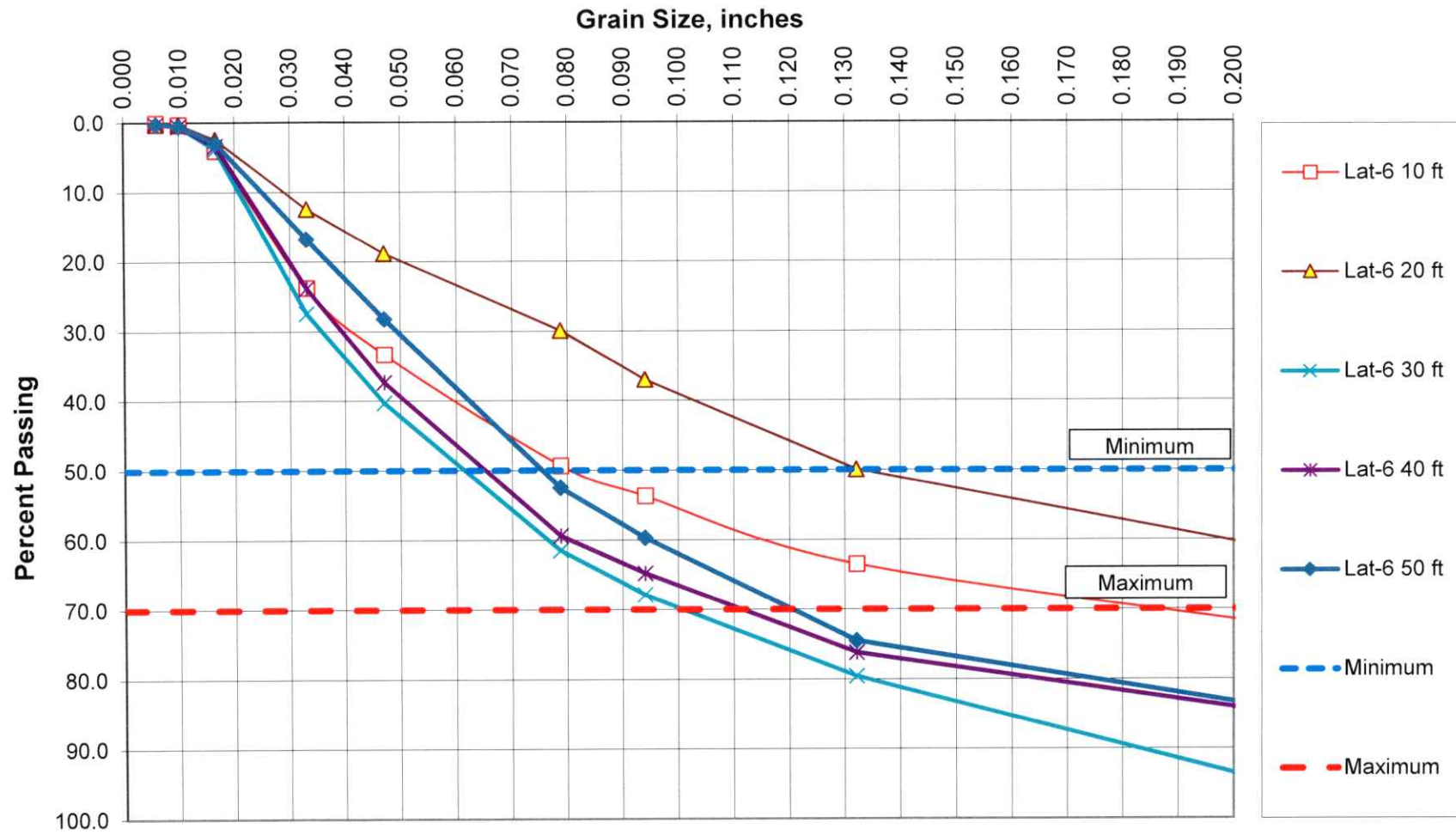
Collector Well
Recommended Screen Slot Distribution

Client:	Sioux Falls, SD	
Well ID:	Collector Well 72	
Lateral Number:	5	
Lateral Length:	210	feet
Screen Length:	200	feet
Date Completed:	1/13/2022	

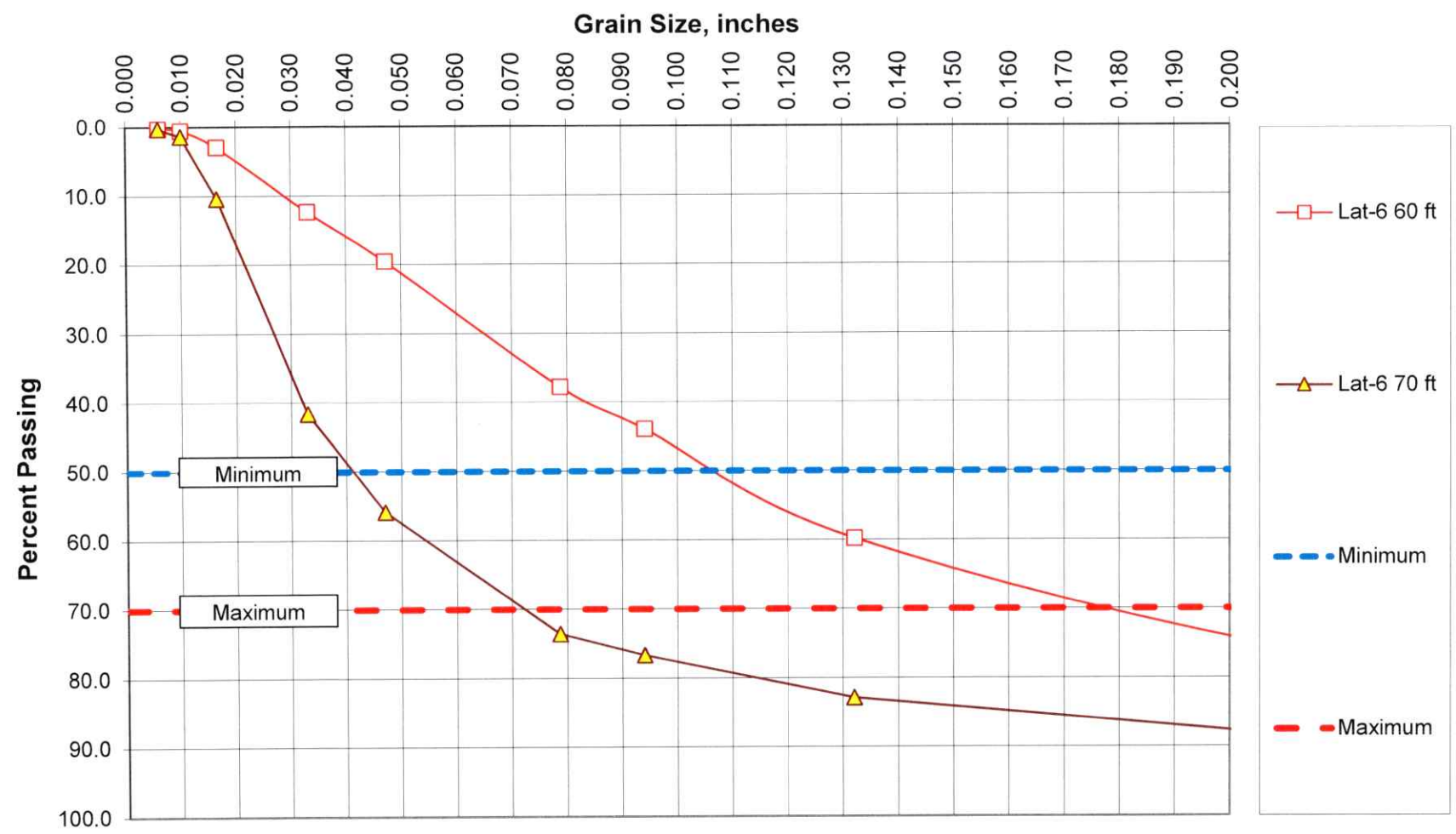
Screen slot distribution		
Distance from Inside Wall of Caisson (feet)	Screen Slot Size (1000 ^{ths} inch)	
0-10	Blank	
10-20	100	slot
20-30	80	slot
30-40	60	slot
40-50	60	slot
50-60	80	slot
60-70	80	slot
70-80	60	slot
80-90	100	slot
90-100	80	slot
100-110	60	slot
110-120	40	slot
120-130	80	slot
130-140	120	slot
140-150	120	slot
150-160	80	slot
160-170	30	slot
170-180	80	slot
180-190	120	slot
190-200	120	slot
200-210	120	slot

Screen Size Utilization		
Screen Slot Size (1000 ^{ths} inch)	Number of 10-foot Section	Length per Slot Size (feet)
Blank	1	10
20	0	0
30	1	10
40	1	10
50	0	0
60	4	40
80	7	70
100	2	20
120	5	50
150	0	0
Total	21	210

**Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 6**



Grain Size Analyses
Sioux Falls, SD
Collector Well 72
Lateral 6



Collector Well
Recommended Screen Slot Distribution

Client:	Sioux Falls, SD	
Well ID:	Collector Well 72	
Lateral Number:	6	
Lateral Length:	70	feet
Screen Length:	60	feet
Date Completed:	1/18/2022	

Screen slot distribution		
Distance from Inside Wall of Caisson (feet)	Screen Slot Size (1000 ^{ths} inch)	
0-10	Blank	
10-20	100	slot
20-30	125	slot
30-40	80	slot
40-50	80	slot
50-60	100	slot
60-70	60	slot
70-80		slot
80-90		slot
90-100		slot
100-110		slot
110-120		slot
120-130		slot
130-140		slot
140-150		slot
150-160		slot
160-170		slot
170-180		slot
180-190		slot
190-200		slot
200-210		slot

Screen Size Utilization		
Screen Slot Size (1000 ^{ths} inch)	Number of 10-foot Section	Length per Slot Size (feet)
Blank	1	10
20	0	0
30	0	0
40	0	0
50	0	0
60	1	10
80	2	20
100	2	20
125	1	10
150	0	0
Total	7	70