

MICROFILMED

TO

HERE *June/77*

EXHIBIT "D" attached to and made part
of an Agreement between Chevron Standard
Limited and B.N. Watson Limited, dated
the 7 day of June, A.D. 1966.

A handwritten signature in black ink, appearing to be 'J. H. ...', written over a horizontal line.

GENERAL CONDITIONS AND SPECIFICATIONS

FOR

VIRIDEN ROSELEA UNIT NO. 2

WATER TREATMENT SYSTEM FOR 5

COPY NO. 2

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SPECIFICATIONS

FOR

VIRIDEN ROSELBA TREATMENT NO. 1

WATER TREATMENT SYSTEM

GENERAL CONDITIONS

Article 1

Section 1

Section 2

Whenever the word "WORKMAN" is used in this contract it is understood to refer to the employees of the CONTRACTOR or duly appointed representatives thereof who are engaged in the performance of the work to be done by the CONTRACTOR.

Inspection

Whenever the word "INSPECTION" is used in this contract it is understood to refer to the inspection of the work to be done by the CONTRACTOR or duly appointed representatives thereof who are engaged in the performance of the work to be done by the CONTRACTOR.

results of the work to be done by the CONTRACTOR

Section 3

Notwithstanding to whomsoever the work to be done by the CONTRACTOR is assigned, the CONTRACTOR shall be responsible for the completion of the work to be done by the CONTRACTOR in accordance with the specifications hereunder. If the work to be done by the CONTRACTOR is delayed or interrupted by strikes, lockouts, fire, flood, or other cause (whether caused or contributed to by those enumerated) the CONTRACTOR shall be responsible for the completion of the work to be done by the CONTRACTOR.

Section 4

The CONTRACTOR shall be responsible for the completion of the work to be done by the CONTRACTOR in accordance with the specifications hereunder. If the work to be done by the CONTRACTOR is delayed or interrupted by strikes, lockouts, fire, flood, or other cause (whether caused or contributed to by those enumerated) the CONTRACTOR shall be responsible for the completion of the work to be done by the CONTRACTOR.

Work

The complete installation of the pipeline facilities, together with all appurtenant parts and facilities thereto as herein described.

Agreement

The formal contract drawn up between the Contractor and the Company of which these specifications are a part.

ARTICLE II

SCOPE OF THE CONTRACTOR'S WORK

1. The Contractor shall furnish all labour, supervision, transportation, tools, equipment and material; except as herein otherwise provided; and to perform all work necessary or desirable in connection with the installation of the pipeline, together with all appurtenant parts and facilities thereto at the locations and in the manner shown on the drawings and plans attached hereto, and in accordance with the Specifications herein set forth.
2. The Contractor shall keep on the job a competent Superintendent, and any necessary supervisory assistants, all satisfactory to the Company. The Superintendent shall represent the Contractor in the Contractor's absence, and directions given to him shall be as binding as if given to the Contractor. The Contractor shall supply and maintain a current list of all supervisory personnel to the Inspector.
3. The Contractor shall provide any land required for temporary structures and its equipment, and obtain permission for and build any roads required for construction work at its sole risk and expense.
4. The Contractor shall obtain all necessary permits and licenses for moving equipment, materials, tools and men across highways and railways, and in and along private lands off the Right-of-Way, furnish all bonds and give all notices required by law.
5. The Contractor shall indemnify and hold harmless the Company from any claims for damages to the Contractor, employees or agents, its vehicles, equipment or tools arising from the operations conducted under the terms of the Agreement.
6. The Contractor shall supply and maintain a current construction and progress forecast to the Inspector.

ARTICLE III

SCOPE OF THE COMPANY'S WORK

1. The Company will provide all Right-of-Way required for location of the permanent structures.
2. The Company will provide all Municipal, Provincial and Federal permits, railway and highway crossing permits, and other permits which can be obtained only by the Company.
3. The Company will furnish only the material set forth in Section MATERIALS, of the Specifications.
4. The Company will have substantial stakes placed at normal 300 foot intervals to indicate one boundary of the Right-of-Way. Right-of-Way will be provided in a 40 foot width. The Contractor is responsible for the preservation of all such stakes in their proper location. In the case of any of them being lost or destroyed, the Inspector shall be notified. All expense incurred by the Company in restoring lost or destroyed stakes may be charged against the Contractor and deducted from the payment due the Contractor.
5. The Company will supply all materials, excepting welding rod, concrete reinforcing steel, concrete, and other materials noted on the plans, that will be permanently incorporated into the finished work. Principal materials furnished by the Company shall be delivered F.O.B. carriers to the general area of the work, unless otherwise specifically agreed; and the Contractor shall be responsible for unloading, stockpiling and demurrage charges of material delivered after the signing of the Agreement.
6. The Company will provide adequate control to properly locate the facilities within the Right-of-Way.

SCOPE OF THE COMPANY'S WORK (con'd)

7. Materials supplied to the Contractor will be dispensed by a Company Warehouseman during the hours 8:00 A.M. to 5:00 P.M. Monday to Friday. Overtime incurred due to infractions of the preceding may be charged back to the Contractor.

ARTICLE IV

METHOD OF PAYMENT

On or before the tenth day of each month, the Contractor shall submit to the Inspector, four copies of invoices covering work done during the preceding month, for the Inspector's approval.

In accordance with the applicable Mechanic's Lien Act the COMPANY shall make payment to the Contractor of the value of the invoices approved by the Inspector.

The amount accruing to the Contractor shall be determined by the Inspector by apportioning the unit prices fixed in the Agreement to the various operations, as follows:

OPERATION

1. Clear, Grade, Haul and String/Store	10%
2. Ditching	30%
3. Bending, Laying and Welding	30%
4. Lower-in and Backfill	15%
5. Clean-up and Testing	15%

The Company may withhold the whole or part of any payment of such extent as may be necessary to protect the Company from loss on account of:

1. Defective work not remedied.
2. Claims filed, or reasonable evidence that claims will be filed.
3. Failure of the Contractor to make payments properly of sub-contractors, or for material, or for labour.
4. Damage to another Contractor.

When the above grounds are removed to the satisfaction of the Company, payments shall be made of amounts withheld because of the same.

METHOD OF PAYMENT (cont'd)

At all times the Contractor shall keep full records of all expenditures made or indebtedness incurred by the Contractor for which it may be intitled to payment by the Company. Such records shall be reasonably accessible and open to inspection and audit by the Company.

Final payment will be made seven (7) days after the expiration of the statutory lien period of 120 days, subject to the right of the Company to retain 15% of the contract price until the Company is satisfied that the Contractor has completed work in accordance with the Plans and Specifications, and a satisfactory final accounting has been made. A statement of clearance must be obtained by the Contractor from the Workmen's Compensation Board and the Unemployment Insurance Commission.

Neither the final payment, nor any provision in the Plans and Specifications, shall relieve the Contractor of responsibility for defects in the work; and unless otherwise specified he shall remedy any defects therein and pay for any damage resulting therefrom, which shall appear within a period of one year from the date of completion.

ARTICLE V

COMMENCEMENT AND COMPLETION DATES

The Contractor shall start work as soon as is practical after notification by the Company that the necessary permits have been obtained and sufficient material is on hand. All work shall be completed prior to ~~October 15th, 1964~~ JULY 31, 1966.

If the Contractor is delayed in the completion of the work due to any acts, omissions or conduct of the Company, or other Contractor in performing a contract with the Company; fire, floods or other casualties beyond the control and without the fault or negligence of the Contractor, the time for completion shall be extended for a period of time determined by the Inspector. The Contractor will notify the Inspector in writing within forty-eight (48) hours after the delay commences. Failure of such notification shall result in no extensions. Any extensions of time granted by the Inspector shall be expressed in writing.

ARTICLE V

COMMENCEMENT AND COMPLETION DATES

The Contractor shall start work as soon as is practical after notification by the Company that all necessary permits have been obtained and sufficient material is on hand. All work shall be completed prior to July 1, 1964.

If the Contractor is delayed in the completion of the work due to any acts, omissions or conduct of the Company, or other Contractor in performing a contract with the Company; fire, floods or other casualties beyond the control and without the fault or negligence of the Contractor, the time for completion shall be extended for a period of time determined by the Inspector. The Contractor will notify the Inspector in writing within forty-eight (48) hours after the delay commences. Failure of such notification shall result in no extensions. Any extensions of time granted by the Inspector shall be expressed in writing.

ARTICLE VI

DELAYS

The Company will make every reasonable effort to make material and Right-of-Way available to avoid delay in construction. However, after receiving the first line pipe, should the Contractor be prevented from performing the major operations of ditching, welding, coating and lower-in and tie-in by reason of lack of material or Right-of-Way, for a period in excess of three (3) days, the Contractor shall be compensated by a sum per shutdown-day, excepting the first three (3) days.

A shutdown-day shall be defined as a whole calendar day during which one or more of the major operations of ditching, welding, coating, and lower-in and tie-in are stopped solely for failure of the Company to furnish material or Right-of-Way. No day shall be a shutdown-day for any major operation until after the date that actual work started on the particular operation.

Payment for shutdown-days will be made for listed crews only. No payment for shutdown days will be made unless the Contractor maintains the involved crew and its equipment ready to resume work on twelve (12) hour notice. Each shutdown-day claimed by the Contractor shall be supported in writing and signed jointly by the Contractor and the Inspector.

In the event that the Company suspended the work under ARTICLE VII or ARTICLE XII herein, the provisions of said Articles, whichever is applicable, regarding the Contractor's compensation shall govern and shall be in lieu of compensation herein provided.

ARTICLE VII

TERMINATION

The Company may, as its sole option, at any time prior to June 30, 1966 terminate this contract on account of Force Majeure or inability to secure materials, or other event conditions arise which make completion of the work within the completion date as shown in ARTICLE I doubtful, or impossible, in the Company's opinion.

In the event this contract is terminated, as provided for in this Article, the Contractor shall take immediate steps to stop work and leave the job in a condition satisfactory to the Company and shall terminate all of its outstanding and incomplete sub-contracts and other commitments pertaining to the work.

The Contractor shall be compensated in this case for its actual net costs incurred subsequent to the date of this contract, plus ten per cent (10%) allowance for overhead and profit. Such compensation shall constitute total and final payment to the Contractor for all materials furnished and work performed.

ARTICLE VIII

PLANS, MAPS, DRAWINGS AND SPECIFICATIONS

All work is to be done in accordance with the Plans, Maps, Drawings, and Specifications. Anything mentioned in the Specifications and not indicated in the Plans, Maps or Drawings, or anything indicated in the Plans, Maps and Drawings and not mentioned in the Specifications shall be of like effect as if mentioned and indicated in both. In case of difference between Plans, Maps and Drawings and Specifications, the Specifications shall govern. In case of discrepancy in the Plans, Maps and Drawings, or Specifications, the matter shall be immediately submitted to the Inspector for clarification.

Detailed drawings shall be provided by the Company during the progress of the work, as deemed necessary by the Company. Such drawings shall be reasonably consistent with the Drawings and Specifications.

The Contractor shall keep one copy of all Plans and Specifications at the job site and in good order, available to the Company. All Plans and Specifications are the property of the Company, and must be returned to the Company upon completion of the work.

ARTICLE IX

CHANGES

The Company expressly reserves the right to change the scope of work and may, without invalidating the contract, order additional work or make changes in the work by altering, adding to or deducting therefrom. All such changes shall be executed under the conditions of the Agreement. The Contractor shall make no additions, alterations or omissions, nor perform additional work, except upon the written authorization of the Inspector. The Contractor shall be compensated for authorized additional work performed at the unit prices set forth in the Agreement.

ARTICLE X

FORCE ACCOUNT AND WORK ORDERS

Compensation for additional work shall be made by the application of the contracted unit prices wherever possible. In the event of additional work not so covered, compensation shall be made on one or the other of the following basis:

- (a) By lump sum agreement.
- (b) By application of the hourly, or weekly, labour and equipment charges.

Company may make alterations in the work to be performed hereunder by adding to, omitting or deviating from the Specifications. Contractor shall be reimbursed for all labor and equipment used in the performance of extra work at standard rates submitted by the Contractor and approved by the Company prior to commencement of such extra work. In the event that the Contractor has to employ labor in which no rates have been posted the Contractor shall be allowed to charge for such labor at the actual wages paid plus twenty per cent (20%) to cover overhead and profit. In the event that Contractor has to hire equipment, Contractor shall be reimbursed for such equipment at rates which do not exceed competitive rates in the area. In the event that the Contractor finds it necessary to engage the services of a sub-contractor, the Contractor shall be reimbursed for such services at the Contractor's cost plus a surcharge of ten per cent (10%) to cover overhead and profit, provided, however, that the sub-contractor costs for labor, equipment and materials are competitive with those in the area.

Claims for compensation under this Article shall be made on forms provided by the Company and signed by both the Contractor and the Inspector. Such claims shall be invoiced separately at the time of normal progress invoicing. Deductions for Mechanic's Lien holdback

FORCE ACCOUNT AND WORK ORDERS (cont'd)

shall be made from such invoices.

The Contractor must submit force account labour and equipment records to the Inspector for approval daily.

In cases where the Contractor supplies materials which are to be furnished by the Company, the Contractor shall receive the total cost of such materials, plus ten percent (10%) of the total material cost. Such total costs must be supported by paid invoices from the material suppliers.

ARTICLE XI

CONTRACTOR'S ACKNOWLEDGEMENT

The Contractor certifies that before signing a contract that the Contractor has visited the site of the work and is thoroughly conversant with conditions that exist there. The Contractor shall assume full responsibility for any expense to it which may arise from these conditions, and the Contractor shall do all work necessary to complete the work in accordance with the Plans and Specifications.

ARTICLE XII

DEFAULT OF THE CONTRACT

If the Contractor shall fail in the opinion of the Company to prosecute the work diligently, or shall abandon the work, or shall be adjudged bankrupt or insolvent, or fail in the performance of ~~any~~ of the covenants contained herein, the Company may, without prejudice to any other right or remedy, terminate the contract forthwith; and the Contractor shall thereupon discontinue any further work hereunder.

In the event of such termination, the Company shall have the right to enter upon the site of the work and may finish the work by any method that the Company may deem expedient; including the employment of another contractor, or contractors, on whatever terms the Company deems advisable. In such case, the Contractor shall not be entitled to receive any further payments under the contract until the work is completed and accepted. Should the cost of completing the work exceed the amount that would have been payable under the contract, the Contractor shall pay to the Company the full amount of the excess.

ARTICLE XIII

INSPECTION

The Company and appointed Inspectors shall, at all times, have access to the work. They shall have the right to reject workmanship which is defective and requires correction. Rejected workmanship shall be satisfactorily corrected without charge to the Company. If the Contractor does not correct such defective work within seven (7) days of such rejection, the Company may correct the defective work and charge the expense so incurred to the Contractor, and deduct this expense from the amount payable to the Contractor, hereunder.

Company may condemn materials, whether worked or unworked, and all portions of the work which appear to the Company to be unsound or defective or failing in any way to conform with the Specifications hereof; Contractor shall remove such condemned materials or portions of the work from the premises within twenty-four (24) hours after receiving notice thereof from Company. If removal of condemned materials or work should result in damage to materials furnished by Company, Contractor shall furnish new materials of identical kind and quantity without cost to Company.

The Contractor shall not be required, at its own expense, to make good on work involving the correction of rejected materials, where such materials are supplied by the Company; provided such defects are not discoverable by visual inspection.

Inspection during the course of the work does not constitute acceptance on the part of the Company.

ARTICLE XIV

CONTRACTOR'S GUARANTEE

The Contractor guarantees that any and all work to be performed hereunder shall be done in a good and workmanlike manner, and in conformity with the usual and accepted practices, and that the work when completed will be free from deficiencies in workmanship and materials; except that with materials furnished by the Company and installed by the Contractor. The Contractor guarantees only that such materials are free from deficiencies discoverable by visual inspection. The Contractor agrees to remedy at its expense, any defects in the workmanship or material supplies by it which are discovered within one (1) year from the date of completion.

ARTICLE XV

INDEMNITY

The Contractor agrees to indemnify and save the Company harmless from and against any loss, damage or expense; either direct or indirect; to which the Company may be subjected by reason of any act, deed or neglect of the Contractor in the performance of the work.

The Contractor shall indemnify and save the Company harmless from all claims, demands, or suits of whatever nature arising out of services, labour and material furnished by the Contractor, or its sub-contractors, under the Agreement.

ARTICLE XVI

SETTLEMENT OF DAMAGE CLAIMS

The Contractor is solely responsible for all damage to public or private property, except for normal damage within the limits of the Right-of-Way, and shall save the Company harmless from any action of any nature whatsoever arising out of the Contractor's work, and shall satisfy all claims for damage due to its own or its employees' acts.

The Contractor shall promptly settle damage claims including consequential damage claims and/or Mechanics' Liens claims for which it is responsible and obtain releases, in a form which must be approved by the Company, for such settlements shall be held for the inspection of the Company. Should the Contractor fail, or refuse, to settle such damage claims, the Company shall have the right to settle and adjust any claims or liens arising out of, or in the course of the work. The Company shall take releases thereof and furnish to the Contractor an itemized statement showing the amounts paid and the proportion thereof that the Company considers chargeable to the Contractor. The Company is authorized to deduct such amounts from the amount payable to the Contractor hereunder.

ARTICLE XVII

INSURANCE

The Contractor shall subscribe for and maintain in full force and effect during the life of the contract, and at the Contractor's sole cost and expense; the following insurance in amounts not less than the minimum specified.

1. Public liability insurance covering all operations hereunder with limits of One Hundred Thousand (\$100,000.) Dollars for any one (1) person killed or injured in any one (1) accident, and Three Hundred Thousand (\$300,000.) Dollars for any two (2) or more persons killed or injured in any one (1) accident;
2. Property damage insurance in the amount of One Hundred Thousand (\$100,000.) Dollars for damage occurring in any one (1) accident.
3. Automobile public liability insurance covering all automotive units engaged in the operations hereunder with limits of One Hundred Thousand (\$100,000.) Dollars for anyone (1) person killed or injured in any one (1) accident, and Three Hundred Thousand (\$300,000.) Dollars for any two (2) or more persons killed or injured in any one (1) accident.
4. Automobile property damage insurance covering all automotive units engaged in the operations hereunder with limits of Fifty Thousand (\$50,000.) Dollars for damage to property occurring in any one (1) accident.

INSURANCE (cont'd)

The Contractor shall conduct all operations under this Contract in full compliance with the applicable Workmen's Compensation Act and all other Acts.

The Contractor shall furnish evidence of the placing of insurance referred to above, and the payment of premiums thereon.

ARTICLE XVIII

NON - WAIVER OF DEFAULTS

Any failure by the Company at any time, or from time to time, to enforce or require the strict keeping and performance of any of the terms or conditions of the Agreement shall not constitute a waiver of such terms or conditions, and shall not affect or impair such terms or conditions in any way, or the right of the Company at any time to avail itself of such remedies as it may have for any breach or breaches of such terms or conditions.

ARTICLE XIX

ROYALTIES AND PATENTS

The Contractor shall defend all suits or claims and shall hold and save the Company harmless from any liability of any nature or kind arising from any infringement, real or claimed, of any patented or unpatented device or method use in the performance of the contract, including its use by the Company, provided that nothing herein shall apply to any materials supplied by the Company. The Company shall give written notice of all such claims instituted against it to the Contractor who shall defend same.

The Contractor shall pay all royalties, taxes, and license fees on the equipment and material furnished by it.

ARTICLE XX

INDEPENDENT CONTRACTOR

It is mutually agreed that in the performance of the work the Contractor is an independent contractor, and nothing in the Agreement shall be construed as creating the relationship of employer and employee between the Company and the Contractor, or Contractor's agents, sub-contractors or employees. The Contractor shall have no authority to hire any persons on behalf of the Company and any and all persons whom it may employ shall be deemed to be solely the employees of the Contractor.

Subject only to the conditions of the Agreement and the Specifications, the Contractor shall have control and management of the work, the selection of employees and the fixing of their hours and labour. Nothing herein shall be construed to authorize the Contractor to incur any debt, liability or obligation of any nature for or on behalf of the Company.

ARTICLE XXI

SUB- CONTRACTS

Prior to sub-contracting or sub-letting any work covered by the Agreement the Contractor shall obtain the Company's written consent thereto.

The Contractor shall be fully responsible for proper performance of all work done by sub-contractors. All agreements between the Contractor and any sub-contractor involved in the completion of the contract shall provide that such sub-contractor shall comply in all respects with all terms of the contract. Nothing in the contract between the Company and the Contractor shall create any contractual relations between the Company and any sub-contractor of the Contractor.

- 11 -
ARTICLE VIII

11.8.1.1. PAYROLL TAXES

The Contractor agrees to be liable to the State for the payment of all contributions, payroll taxes, whether withheld, assessed, or otherwise, and deductions include but not limited to income tax, unemployment insurance, assessed against employees on wages earned in connection with the work and shall make all contributions required by law or law made in respect of such employees. Contractor agrees to indemnify Company for all liability in connection therewith and to make all reports required thereunder. The Contractor shall also pay all other taxes now or hereafter imposed by any governmental authority upon, assessed by or incident to, the performance of the Contractor or the purchase, storage, use or consumption of the Contractor of material used in the performance of this contract, unless the applicable law specifically provides that such tax be paid by Company.

ARTICLE XXIII

CONDUCT OF THE WORK

The Contractor will cause the least possible inconvenience to the public and to private individuals in the vicinity of the work, and shall render them all reasonable assistance wherever so required. The Contractor shall not permit any materials, stones or rubbish to be deposited or remain upon any private grounds without first obtaining the Owner's consent; nor permit any unnecessary obstructions anywhere. The Contractor shall provide and maintain all necessary signs, signals, crosswalks and bridges for the safety, convenience and protection of the public. The Contractor shall conform in all respects to the provisions and regulations as laid down by public authority which may be applicable to the work to be performed. The Contractor agrees to indemnify the Company against all penalties incurred by reason of non-observance of any such provisions, regulations, or orders.

The work shall be carried forward at a rate that will, in the opinion of the Inspector, insure its completion according to the contract. The Contractor shall supply and maintain a current construction and progress forecast to the Inspector which will show the order in which the Contractor proposes to carry out the several parts of the work, the work to date, and the estimated date of completion of the several parts.

ARTICLE XXIV

BOND

The Contractor shall, prior to the commencement of the work, furnish a performance bond in the amount of one hundred percent (100%) of the total contract price. Such bond shall guarantee and be conditioned upon performance and completion of the work in accordance with the contract, and shall contain provisions fully protecting the Company against any and all claims and liens. Such performance bond shall be in a form acceptable to the Company and failure on the part of the Contractor to supply such performance bond shall terminate the Agreement, without any liability whatever to the Company.

ARTICLE XXV

USE OF EXPLOSIVES

The Contractor shall comply with all rules and regulations, as laid down by public authority having jurisdiction, regarding the use of explosives, and shall exercise all due care and caution.

The Contractor shall give twenty-four (24) hour notice prior to the use of explosives, to the Inspector.

ARTICLE XXVI

ORAL AGREEMENTS

No oral representations shall be part of the contract.

ARTICLE XXVII

CONTRACTOR'S LABOUR, TOOLS AND EQUIPMENT

The Contractor will furnish all labour, supervision, transportation, tools, equipment, materials and other requirements, except as herein otherwise provided; and perform all work necessary or desirable in connection with the installation of the work. All labour, equipment, tools, supplies and materials used by the Contractor in this work must be adequate for the work and acceptable in quality and condition to the Inspector.

SPECIFICATIONS

FOR

VERDEH ROBERTA UNIT NO. 2

WATER TREATMENT SYSTEM NO.

CONSTRUCTION

CONSTRUCTION PIPELINES

GENERAL DESCRIPTION OF WORK TO BE PERFORMED

The work consists of the fabrication of approximately 2000 feet of 2 1/2 inch diameter pipe in three sections. The pipe will be fabricated in a shop and wrapped in a special material.

The pipe will be fabricated in a shop and wrapped in a special material. The pipe will be fabricated in a shop and wrapped in a special material.

Together with a few necessary valves, cross-connections and other necessary apparatus to be furnished by the piping contractor, a water gathering system is being set up, attached to these San Antonio. This work includes the fabrication of all pipes and fittings on the site in drawing sheets with flanges and 10' long.

The work described in this report is to be done in the course of the construction of the Egyptian Dam, which will be a concrete dam of the gravity type, with a maximum height of 100 feet and a length of 1000 feet. The dam will be built on a foundation of sandstone and will be built in three sections. The work described in this report is to be done in the course of the construction of the Egyptian Dam, which will be a concrete dam of the gravity type, with a maximum height of 100 feet and a length of 1000 feet. The dam will be built on a foundation of sandstone and will be built in three sections.

2. MATERIALS

The following materials shall be used in the construction of the job and the quantities listed are approximate quantities to be used to become a permanent part of the work.

A. PIPE

2 3/8" O.D. x .25" wall A.P.I. 5L Grade B, seamless or E.R.W. line pipe, double random lengths, ends beveled for welding. This pipe will have yellow jacked wrap and will be cement lined.

3 1/2" O.D. x .25" wall A.P.I. 5L Grade B, seamless or E.R.W. line pipe, double random lengths, ends beveled for welding. This pipe will have yellow jacked wrap and will be cement lined.

B. FITTINGS AND MISCELLANEOUS

As indicated by the Plans of Construction.

C. COATING AND WRAPPING

As specified by these Specifications.

3. RIGHT-OF-WAY, UNLOADING, HAULING, STRINGING AND/OR STORING

Work Covered

This shall include works done on all fences on the Right-of-Way it may be necessary to cut, all work necessary for clearing and grading within the limits of the Right-of-Way, including temporary bridges, embankments, road construction for access to the Right-of-Way, and the work of all unloading, hauling, stringing, and storing of pipe, valves, fittings and materials, excepting the unloading and storing down by the Company at the Company's option.

Construction Procedure

(a) Right-of-Way

Wherever fences are out, substantial gates shall be installed. These gates shall be kept closed except when actually in use and shall be maintained in good repair at all times. Before such fences are cut the Contractor shall notify the Landowner or Tenant.

The Landowner's special instructions shall be observed and complied with as far as it is possible. Loam is to be graded to one side and replaced as cover after backfilling operations are completed.

Clearing shall be made for the full width of the Right-of-Way, except when passing through wind breaks, gardens, lawns, etc., where only such width as is necessary will be used, and grading shall be carried out to enable optimum equipment efficiency.

Grading shall be carried out to provide an adequate working surface for the Contractor's equipment. On completion of the work the original ground contour must be restored.

Damages caused outside these Rights-of-Way limits shall be the sole responsibility of the Contractor.

(b) Unloading, Hauling, Stringing and/or Storing

All material supplied by the Company shall be unloaded and hauled to the site or stored by the Contractor, so as to relieve the Company from any claim for demurrage or storage. The Contractor shall not commence any unloading operations until clearance has been obtained from the Inspector.

Pipe shall be handled so as to prevent damage to pipe walls, cement lining, exterior wrap, or pipe ends. The Contractor shall string pipe so as to avoid excess or shortages and subsequent rehandling, and in such manner so as not to interfere with normal traffic across the Right-of-Way.

Coated pipe shall be handled so as not to damage the coating. Pipe shall be moved with hoisting equipment, or by hand, and shall be loaded so as to eliminate undue flexing or shifting during hauling.

No material shall be dropped to the ground, or other surface, by the Contractor.

Coating materials shall be unloaded without damage and stored to prevent loss or contamination.

Miscellaneous valves, fittings, and other material shall be unloaded and stored in a manner to prevent damage or deterioration.

The Contractor shall acknowledge receipt of all materials and will be responsible for all materials delivered to him. Any materials damaged by the Contractor shall be replaced by the Company at the expense of the Contractor.

Basis of Payment

This item of work herein described will be paid for as part of ARTICLE IV of the General Conditions.

4. DITCHING

Work Covered

This work shall cover all excavation, whether by machine or by hand to prepare a trench on the offset line from the Right-of-Way boundary designated by the Inspector in the field in which the pipe will lay and have a minimum cover of 60 inches.

Construction Procedure

The Contractor shall dig the trench to the line as staked by the Company to the following minimum dimensions.

<u>Pipe Type and Size</u>	<u>Normal Excavation</u>		<u>Rock Excavation</u>	
	<u>Width</u>	<u>Depth</u>	<u>Width</u>	<u>Depth</u>
2 3/8" O.D. steel, cement lined	18	64	12	62
3 1/2" O.D. steel, cement lined	20	65	12	63
4 1/2" O.D. steel, cement lined	20	66	12	64
2 3/8" O.D. P.V.C. plastic	18	64	12	62
3 1/2" O.D. P.V.C. plastic	20	65	12	63
4 1/2" O.D. P.V.C. plastic	20	66	12	64

No extra compensation will be paid for extra depth required to minimize bends, facilitate grading at tie-ins, to obtain twelve (12) inch clearance from existing installations or to obtain specified depths at minor water crossings.

The amount of open ditch allowed and the method of crossing permanent roads shall be determined by the Inspector.

All obstructions shall be barricaded and flared to the satisfaction of the Inspector and public authority having jurisdiction. Adequate detour signs, flares and flag men if required, will be used when work is in progress crossing public or private roadways.

The finished ditch shall be free from ashes, rocks, clods, and other foreign material.

Where private lawns, hedges, etc., are encountered, and when the use of normal ditching equipment may cause undue damage, hand ditching will be required. This hand ditching will be carried out by the Contractor at no additional cost to the Company.

The Contractor shall be responsible for locating and protecting all underground installations. Repairs to such installations damaged in ditching or other operations shall be at the sole expense of the Contractor. Reports of damage to, or incidents relating to, interfering structures shall be made immediately by the Contractor to the Inspector of the damaged structure.

Rock excavation shall be interpreted as solid rock in its original formation, boulders in excess of nine (9) cubic feet, and consolidated material which cannot be removed with a combination of a D8 tractor, ripper and backhoe.

Ditch in rock excavation shall be to the minimum dimensions as tabulated, in this section, and quantities shall be computed from these dimensions.

Where blasting is required "rock spatter" will be kept to a minimum, and all such spatter will be picked up to the satisfaction of the landowner and Inspector. All governmental regulations regarding the use and handling of explosives shall be observed by the Contractor.

Basis of Payment

This item of work herein described will be paid for as a part of ARTICLE IV of the General Conditions. The Contractor will receive extra compensation for rock excavation as set forth in the Agreement. Quantities for these payments must be approved by the Inspector.

5. BENDING - CEMENT LINED STEEL PIPE

Special care must be taken for all field bends. No deformed bends will be allowed due to the danger of crimping the pipe and cracking or spalling the cement lining. All bends will be made within the elastic limits and the following tangent offset distances for a forty ft. (40') joint of pipe must not be exceeded.

<u>Pipe Size</u>	<u>Offset Distance</u>
2 3/8"	6.0 ft.
3 1/2"	3.0 ft.
4 1/2"	.75 ft.

6. LAYING

Work Covered

This work shall include the handling of pipe on the Right-of-Way incidental to placing and joining.

Construction Procedure

Each joint of pipe shall be swabbed throughout its entire length with an acceptable disc to remove all dirt, scale and foreign materials prior to welding. Any obstruction remaining shall be removed at the expense of the Contractor on completion of the work.

The pipe shall be handled so as to prevent damage to pipe wall, bevelled ends, cement lining, and wrap.

(a) Cement Lined Steel Pipe

The pipe shall be laid on supports at a sufficient height to allow welding, testing and coating operations to be performed efficiently.

The pipe shall be laid with sufficient slack to ensure that the pipe in its final position will be under compression.

All open line ends shall be closed with secure night-caps to prevent the introduction of foreign objects into the line. These night-caps shall be in place at all times when work is not in progress.

Pipe strings shall not exceed one (1) mile in length. In these individual pipe strings, welds with the stringer bead only applied will not be allowed at the end of the working day. Pipe strings with the stringer bead and hot pass only will not be allowed for lengths in excess of 2,000 feet. At all times the hot pass shall be maintained immediately behind stringer bead operations.

(b) P.V.C. Plastic Pipe

Installation of P.V.C. plastic pipe will conform to manufacturer's specifications which will be considered as part of these Specifications.

Basis of Payment

This item of work herein described will be paid for as part of ARTICLE IV of the General Conditions. There will be no separate payment for this item of work.

7. WELDING - CEMENT LINED STEEL PIPE

Work Covered

This work shall include the welding of pipe joints, including necessary cutting bevelling and repairs to cement lining.

Construction Procedure

All welding shall be done in accordance with A.P.I. Standard 1104 "Standard for Field Welding of Pipelines." The following points are to be especially considered.

It must be clearly understood by Contractor that all welds shall be made with welding electrodes conforming to A.W.S. and A.S.T.M. Class E 6010 (Lincoln Electric Company's Fleetwood #5 only) and #7010 (Lincoln Electric Company's Shield Arc #85 only) as specified by A.S.T.M. A-233 or A.W.A. A-5-1.

The passes shall be applied as follows:

Stringer or Root Pass - 5/32" rod size. E-6010 Electrode

Hot Pass - 5/32" rod size. E-7010 Electrode.

Stripping Passes - 3/16" rod size. E-7010 Electrode.

The number of stripping passes will depend on the pipe diameter and wall thickness.

Capping of Finishing Pass - 5/32" rod size. E-7010 Electrode.

Test welds shall be required of each welder. After each welder has qualified the Company shall be privileged to cut one weld from the line made by each welder at no extra compensation to the Contractor.

No welding shall be performed when weather conditions will impair the quality of the weld.

The Contractor shall provide acceptable weld testing machines.

Any welder who fails to meet subsequent test requirements shall be removed from the work and his stencil shall be voided and not reissued on this work.

It shall be the Contractor's responsibility to see that workmen place welding rod stubs and discarded welding rod in adequate containers supplied by the Contractor. These containers shall be removed from the Right-of-Way and their contents disposed of in a manner and location acceptable to the Inspector.

Any joints of cement lined pipe may be cut only by specific instructions from the Inspector. All bevels on line pipe must be made with a bevelling machine and oxy-torch; hand bevelling will not be allowed. All field bevels shall have a 35° 40° bevel, and a power sander and/or buffer be used to finish the cut to a bevel and shoulder similar to the shop bevel.

Bevelled ends of all pipe must be filed clean of rust and must present a bright bare metal surface immediately before tack weld or stringer bead is run. All pipe to be welded must

first be checked to be sure that the cement has a smooth face flush with the end of the steel. Any pipe that has chips or gouges in the cement must be repaired by the Contractor at his own expense before welding. All asbestos gaskets to be used in welding must be dry and must not be broken or severely distorted out of round. The asbestos gasket shall be placed so that it will cover the cement liner but must not cover any part of the steel at the end. The two ends of pipe shall be brought together so that they secure the gasket tightly between the two ends of the cement. The pipe shall be tacked in three places around the weld section before any clamps are removed. Under no circumstances are the steel ends of the pipe to be butted up together leaving no gap for welding. The weld shall be inspected after tacking to assure that the gasket has seated properly.

Tack welds shall have a thickness of not more than two-thirds ($2/3$) the thickness of the pipe wall, and these tack welds are to be free from pin-holes so that completed welds will have 100% of the pipe strength at points of tacking. All tacks or stringer beads are to be free of scale and oxides before filler welds are made.

Where welds have been rejected due to poor alignment, icicles, poor weld quality etc., such welds shall be cut out of the line at no expense of the Company, and cement lined "pup-joints" shall be welded into the line, and such "pup-joints" shall have a minimum length of four feet (4').

Should laminations or split ends develop in the pipe during welding, the full joints containing these defects shall be removed from the line and marked for inspection by the Company's Inspector. These defective joints shall not be used later in pipe line construction unless they are trimmed and pass inspection by the Company, and removal of such joints shall be done at no expense to to the Company.

During winter months no field pipe line welding will be carried on while temperature is lower than 5 degrees below zero.

Basis of Payment

This work as herein described will be paid for as part of ARTICLE IV of the General Conditions. The Contractor shall be compensated for test welds which prove satisfactory, and other bevelling as set forth in the schedule of Contractor's compensation in the Agreement.

8. AIR TESTING AND PIGGING

Work Covered

This work shall include the pigging and sectional testing of the pipe strings to coating and final tie-ins.

Construction Procedure

The finished lines shall be delivered to the Company free from all foreign materials and objects, and such defects as flattening, excessive weld protrusion, etc.

Swabs, of a pattern acceptable to the Inspector, shall be air driven through all lines.

All lines shall be air tested at 100 P.S.I.G. and each weld soap tested. A stand-up test of 24 hours may be required on each string.

In the case of the swab lodging in the pipe, or leaks being found, all cut-outs, replacement and repairs shall be made by the Contractor at his expense. The testing and swabbing shall then be re-run.

All lines shall be pigged end to end in place after back-filling and compaction are complete. This shall be done with a pig of acceptable pattern approved by the Inspector and supplied by the Contractor at his expense.

Basis of Payment

This item of work herein described will be paid for as part of ARTICLE IV of the General Conditions. There will be no separate payment for this item of work.

9. COATING AND WRAPPING WELD AREA, REPAIRS AND FITTINGS

Work Covered

This shall include the performance of all work to clean, prime, coat and wrap all pipe joints, fittings, and appurtenances,

All of the 2 3/8" O.D., 3 1/2" O.D. and 4 1/2" O.D. cement lined steel pipe will be supplied pre-wrapped. It will be the Contractor's responsibility to protect this covering and coat all weld areas and repair all field damages with tape wrap supplied by the Company. The weld coating and repairs to covering will be made by Contractor and the cost of installing this coating to these areas is to be included in the unit bid.

Construction Procedure

The Contractor shall apply a protective coating of primer and tape wrap as designated by the Company. All materials will be supplied by the Company.

The Contractor shall supply and operate an acceptable high voltage holiday detector.

Cleaning shall be done with a power cleaning machine that will remove all rust, dirt, mill scale, and leave pipe in proper condition for coating. The pipe must be clean, dry and free from foreign materials before coating.

Kerosene shall not be used to remove grease or oil. All weld spatter, sharp edges, shall be removed from the pipe surface by acceptable methods.

All coating shall be rigidly inspected, both electrically and visually during application and after. The final inspection and repair during lower-in shall not replace initial inspection and repair, nor vice versa.

During the day's coating operation, the Contractor shall remove all waste and surplus material from the Right-of-Way. Waste shall be disposed of in a manner and location acceptable to the Inspector.

Plastic tape shall be applied in a continuous smooth spiral wrap with a minimum $\frac{1}{2}$ " lap. Plastic tape rolls shall be at a temperature approximately ground temperature prior to use.

The Contractor will be permitted to cradle the pipe directly into the ditch, provided that the coating material is at a temperature acceptable to the Inspector, and that the ditch is

free from objects which would damage the coating. Slack loops must be installed every 2,000 feet or as otherwise directed by the Inspector.

Basis of Payment

This item of work herein described will be paid for as part of ARTICLE IV of the General Conditions. There will be no separate payment for this item of work.

10. LOWER-IN AND TIE-IN

Work Covered

This will include all work necessary to lower pipe into the ditch after coating repairs have been completed and to tie-in separate sections of the pipeline into a continuous system.

Construction Procedure

(a) Cement Lined Steel Pipe

Pipe shall not be lowered in until the ditch is free from objects which would damage the coating.

Pipe shall be lowered to the prepared ditch so as to obtain uniform bearing throughout its length.

Slack loops will be placed as required.

Backfill shall be carried out between slack loops and "loose ends" so as to hold the pipe in position. Slack loops will be lowered under the Inspector's supervision and at a temperature to give maximum contraction.

No slack shall be "tramped in".

Tie-ins shall be made so that the pipe in its lowered position will be in compression.

The maximum length pup which shall be used is forty-eight (48) inches. All pups over forty-eight (48) inches shall be moved

ahead and welded into the pipeline. Pups under forty-eight (48) inches shall be delivered by the Contractor to the Company's storage yard.

(b) P.V.C. Plastic Pipe

Installation of P.V.C. plastic pipe will conform to manufacturer's specifications which will be considered as part of these Specifications.

Basis of Payment

This item of work herein described will be paid for as part of ARTICLE IV of the General Conditions.

11. BACKFILL AND CLEAN UP

Work Covered

This shall include all work necessary to backfill excavated material, restore banks, hillsides or other places where grading was carried out and to remove all surplus material, finish grading of backfill, fence repair and restoration.

Construction Procedure

Backfill operations shall be maintained immediately behind lower-in. No rocks, clods or other hard objects shall be thrown, or allowed to fall on the coated pipe. The backfill shall be compacted to meet the requirements of the Inspector. Surplus soil shall be crowned over the ditch or otherwise disposed of in a manner acceptable to the Inspector.

All loose rock exposed by construction operations shall be removed entirely, and hauled to a point acceptable to the Landowner, Tenant, and Inspector, for suitable disposal. Loose rocks may be returned to the ditch provided that the ditch is filled to point twelve (12) inches above the top of the pipe with loose dirt before rock is placed therein and provided that the rocks put into the trench will not interfere with the use of the land by the Landowner, or Tenant.

The worked over portions of the Right-of-Way shall, in pasture, grasslands or in cultivated areas, be re-cultivated to a depth one (1) inch deeper than is normally practised in the area; or as is otherwise acceptable to the Inspector. In special areas, the Right-of-Way shall be left in the condition required by public authority having jurisdiction.

Fences shall be repaired to the satisfaction of the Landowner with new material equal to or better than the original. Ditches at road crossings shall be completely restored. Existing road surfacing shall be replaced by the Contractor. The original land contour must be replaced in all areas of cut and fill. On steep gradients, drainage furrows will be cut across the Right-of-Way at the direction of the Inspector.

Throwing of welding rod, trash and other foreign material into the ditch will not be permitted.

All surplus material shall be returned to the Company's yard and all trash removed. The Right-of-Way shall be left in a condition acceptable to the Inspector, the Landowner, and public authority having jurisdiction.

The Company reserves the right to limit the amount of uncompleted clean-up.

Basis of Payment

This item of work herein described will be paid for as part of ARTICLE IV of the General Conditions.

12. TESTING

Work Covered

This shall include all work necessary to test and repair the completed line as require by the Inspector.

Construction Procedure

The completed pipeline systems shall be tested hydrostatically as cement lined steel - 1800 psig.

P.V.C. plastic - 100 psig.

The Contractor will be responsible for supplying and hauling, at no extra cost to the Company filtered water for line fill-up. If freezing within the lines should occur with the use of water it will be the Contractor's responsibility to clean all lines and repair any damage that may occur to them. These tests shall be recorded on a recording pressure gauge supplied by the Company, for twenty-four (24) hours or for such longer period as required by public authority.

All leaks or pressure drops shall be repaired, or remedied, by the Contractor immediately, and the Inspector may suspend all further work until such defects are located and repaired.

No pressure drop will be allowed on this final stand-up test.

Upon completion of the test all lines shall be thoroughly voided of water by the Contractor. All water shall be suitably disposed of.

Blanks or seals required for the low pressure gathering system at the battery open ends or other tie-ins to secure the necessary test will be included and furnished by the Contractor.

The one (1") inch thick, circular test holes in the Plans of Construction are to be installed in the line runs on each riser for the cement lined injection system to secure the necessary pressure test. If blanks or pancakes are required at any of the risers they will be supplied and installed by the Contractor as part of the unit price for the installation of 2 3/8" pipe.

Basis of Payment

This work herein described will be paid for as part of ARTICLE IV of the General Conditions. There will be no separate payment for this item of work.

13. APPURTENANCES

Work Covered

This item shall cover all work equipment and supplies necessary for the construction and installation of all injection well risers, plant risers, injection line tie-ins as detailed by the Plans of Construction, road crossings, signs and other appurtenances.

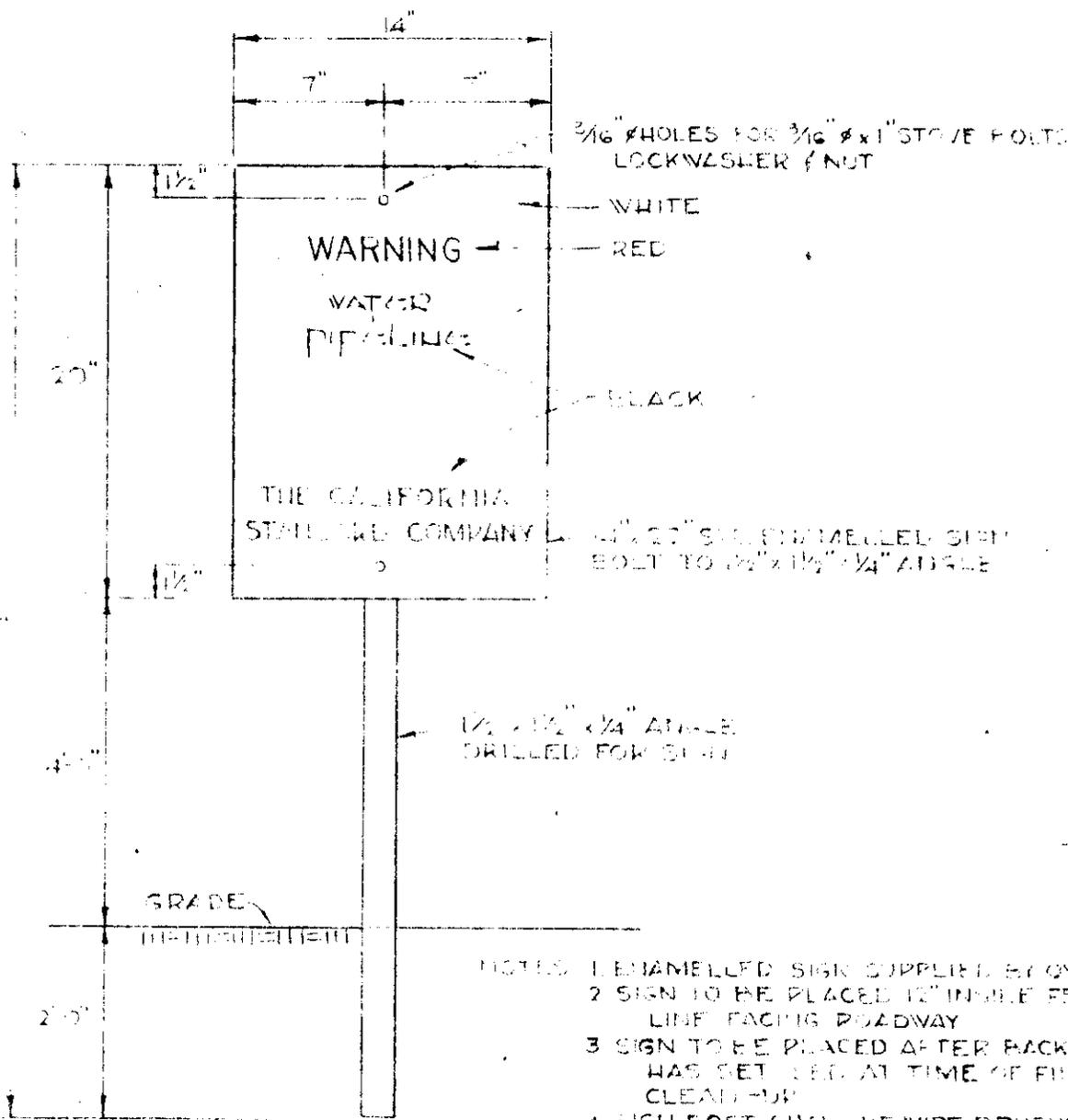
Construction Procedure

Warning signs will be placed on either side of the
surreyed roads and railway crossings. The signs to be
supplied by the Company and placed in the Contractor as directed
by the Inspector.

All work done under this section shall be in accordance
with these Specifications and/or the manufacturers recommendations.

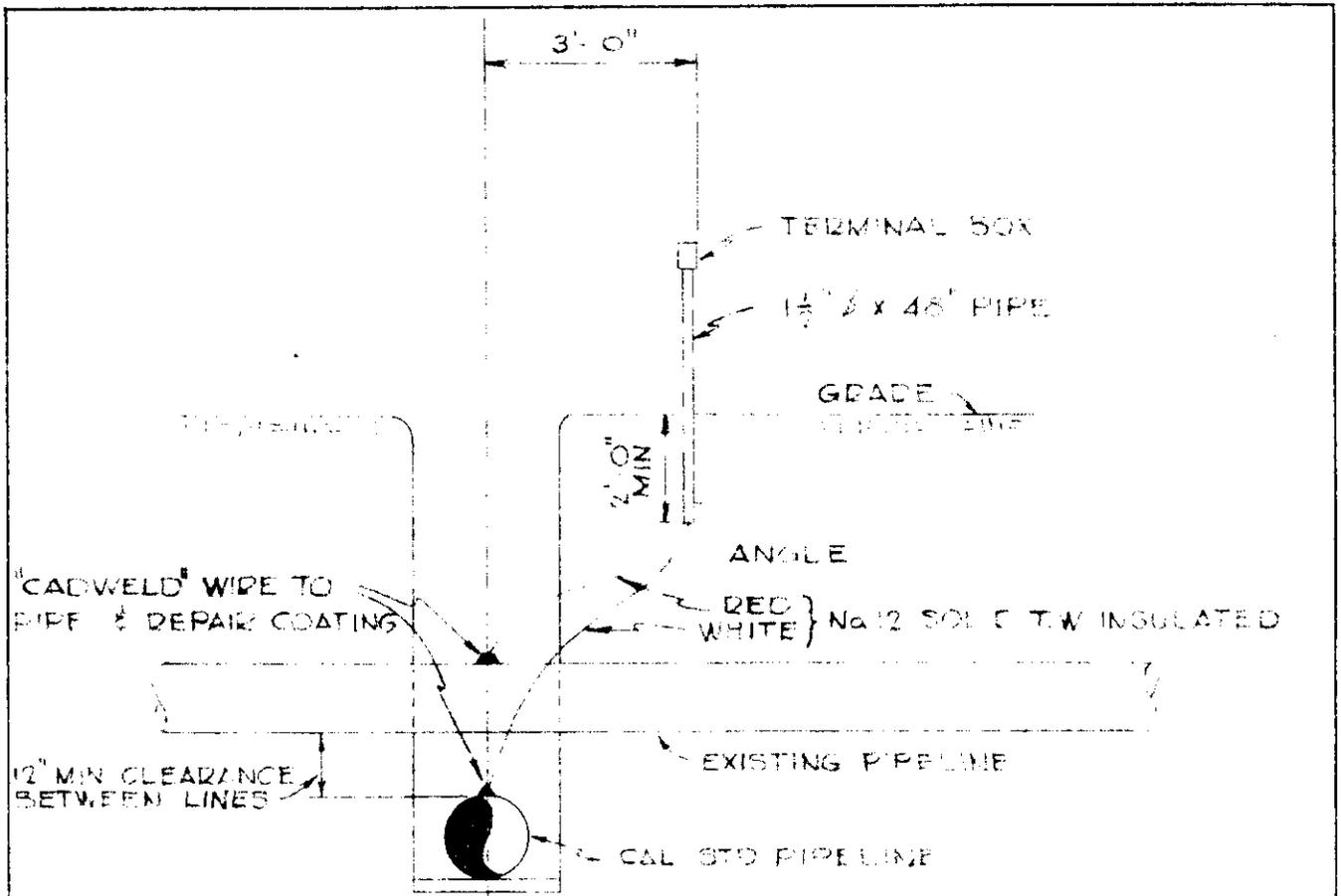
Basis of Payment

This item of work will be paid for as set forth in the
schedule of Contractor's Compensation in the Agreement.



- NOTES: 1. ENAMELLED SIGN SUPPLIED BY OWNER
 2. SIGN TO BE PLACED 12" INSIDE FENCE LINE FACING ROADWAY
 3. SIGN TO BE PLACED AFTER BACKFILL HAS SET & ED. AT TIME OF FINAL CLEAN-UP
 4. SIGN POST SHALL BE WIRE BRUSHED TO BASE METAL. CONTRACTOR SHALL SUPPLY & APPLY ONE COAT OF RUSTOLEUM DAMP PROOF PRIMER & TWO COATS BARCO ALUMINUM PAINT TO THE SIGN POST.
 5. INCLUDE IN UNIT PRICE.

THE CALIFORNIA STANDARD COMPANY		
VIRDEN ROSELEA UNIT No. 2 INJECTION PLANT No. 1 AND SYSTEM		
BY:	DATE:	B-9475
CHKD:	SCALE: NONE	



REQUIRED AT EACH CROSSING OF A FOREIGN PIPELINE.

- NOTES:
1. IN CASE WHERE EXISTING LINE IS AT ABNORMAL DEPTH CUTTING WILL BE MADE ABOVE.
 2. ALL MATERIALS & CADWELD KIT SUPPLIED BY COMPANY - INSTALLATION BY CONTRACTOR.
 3. TEST POST SHALL BE WIRE BRUSHED TO BASE METAL. CONTRACTOR SHALL SUPPLY & APPLY ONE COAT OF RUSTOLEUM DAMP PROOF PRIMER & TWO COATS BAPCO ALUMINUM PAINT TO THE TEST POST.
 4. THE COMPANY MAY EXTEND LEAD WIRES TO LOCATE TEST POST ON FENCE LINE.
 5. PRICE TO BE INCLUDED IN UNIT BID.

THE CALIFORNIA STANDARD COMPANY		
VIRDEN ROSELEA UNIT No. 2 INJECTION PLANT No. 1 AND SYSTEM		
TYPICAL BONDING CONNECTION WITH EXISTING PIPELINES		
BY:	DATE:	B-9476
CHKD:	SCALE: NONE	

REGISTERED

September 8, 1966

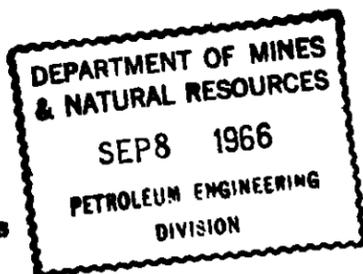
Mr. L. D. Brown,
Area Supervisor,
Chevron Standard Limited,
Box 100,
Virden, Manitoba.

Re: Virden-Roselea Unit #2
Application for Operating Licence
for Pipe Line Injection System.
Your File : 664.3

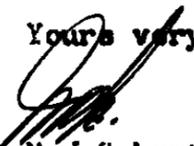
Dear Sir:

With reference to your application of August 18, 1966,
enclosed herewith are:

1. Operating licence No. 17, dated
September 6, 1966.
2. An approved print of plan registered in
B.L.S.O., as Plan No. 1245.
3. Approved prints of detail plans 1 to 8 in-
clusive, showing road crossings.
4. Letter of approval as to Road Crossings
signed by Mr. R. K. Sharpe on behalf of the
Highways Department.



Yours very truly,


H. J. Gobert
Assistant Deputy Minister

c.c. Mr. G. E. Johnson,
Box 1359,
Virden, Manitoba.

August 19, 1966

Deputy Minister,
Department of Highways,
Legislative Building,
Winnipeg 1, Manitoba.

Re: Chevron Standard Limited.
Sec. 31-Twp. 10-Rge. 25 WPM
Sec. 36-Twp. 10-Rge. 26 WPM
Secs. 5, 6, 7 & 8-Twp. 11-Rge. 25 WPM.

Dear Sir:

Attached herewith are 4 prints of Plan of Survey, registered at B.L.T.O. as Plan 1245, together with 4 prints of plan and profile of each road crossing.

A copy of the application is attached as well.

If these plans are in accordance with Highway and Drainage requirements, kindly return 3 approved copies to this office.

Yours very truly,



M.J. Gobert
Assistant Deputy Minister.

MJG/js
Att.

REGISTERED

September 8, 1966

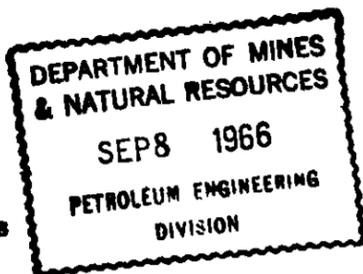
Mr. L. D. Brown,
Area Supervisor,
Chevron Standard Limited,
Box 100,
Virden, Manitoba.

Re: Virden-Hoselea Unit #2
Application for Operating Licence
for Pipe Line Injection System.
Your File : 664.3

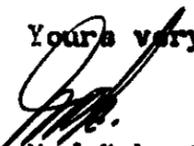
Dear Sir:

With reference to your application of August 18, 1966,
enclosed herewith are:

1. Operating Licence No. 17, dated
September 6, 1966.
2. An approved print of plan registered in
B.L.I.O., as Plan No. 1245.
3. Approved prints of detail plans 1 to 8 in-
clusive, showing road crossings.
4. Letter of approval as to Road Crossings
signed by Mr. R. K. Sharpe on behalf of the
Highways Department.



Yours very truly,


H. J. Gobert
Assistant Deputy Minister

c.c. Mr. G. E. Johnson,
Box 1359,
Virden, Manitoba.



CHEVRON STANDARD LIMITED



Box 100
VIRDEN, Manitoba
August 18, 1966

File: 664.3

"REGISTERED"

Department of Mines and Natural Resources
Legislative Building
WINNIPEG 1, Manitoba

Attention: The Honorable Gurney Evans
Minister of Mines and Natural Resources

Dear Sir:

Re: Virden Roselea Unit #2.

Application for Operating License for the
Injection Plant and System.

Pursuant to Section 19 (1) of the Pipe Line Act, Chevron Standard Limited as Unit Operator of the Virden-Roselea Unit #2, hereby applies for an operating license for the injection plant and system all of which have been installed under Construction Permit No. 14.

The system for which an Operating License is being requested is as per registered Survey Plan No. 1245 and is listed below.

1. 3½" cement lined steel pipe from Lsd. 2-6-11-25 to Lsd. 8-6-11-25.
2. 2 3/8" cement lined steel pipe from Lsd. 8-6-11-25 through Lsd. 12-5-11-25 to Lsd. 14-5-11-25.

3. 2 3/8" cement-lined steel pipe from Lsd. 12-5-11-25 through Lsd. 16-6-11-25 to Lsd. 4-8-11-25.
4. 2 3/8" cement-lined steel pipe from Lsd. 2-6-11-25 through Lsd.'s 7-6-11-25, 10-6-11-25, 14-6-11-25 to Lsd. 2-7-11-25.
5. 2 3/8" cement-lined steel pipe from Lsd. 2-6-11-25 through Lsd.'s 1-6-11-25, 4-5-11-25, 13-31-10-25 to Lsd. 12-31-10-25.
6. 2 3/8" cement-lined steel pipe from Lsd. 2-6-11-25 through Lsd. 15-36-10-26 to Lsd. 10-36-10-26.

Section 19 (2) of the Pipe Line Act requires the supplying of "such complete and detailed plans and specifications as may be prescribed by the regulations, and such other information as the Minister may require." In this regard, we have been guided by the list of requirements on the back of Construction Permit No. 14. The attached summary sheet outlines the information enclosed.

Section 20 (1) of the Pipe Line Act requires that the Plan of Survey be registered in the appropriate Land Titles Office before an application for an operating license is made. The enclosed plan of Survey was registered in Brandon, Manitoba on January 14, 1966 as Plan No. 1245

We feel that we have complied fully with all the conditions set forth on Construction Permit No. 14, and necessary to obtain an operating license. Accordingly, we request your early and favourable consideration of this application.

Yours truly,



L. D. BROWN, P. Eng.
Area Supervisor

BB/ms

cc: J. G. Trowell

Attach.

SUMMARY OF INFORMATION SUBMITTED

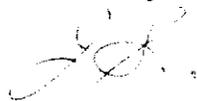
<u>ITEM</u>	<u>IDENTIFICATION</u>
1. 4 copies of Plan of Survey, showing Land Parcels, Acreage, Owners and Occupiers	Plan No. 1245
2. 4 copies of Profiles of Road Crossings:	
(a) Between Sec. 31-10-25 and Sec. 5-11-25	Plan No. 1
(b) Between Sec. 5-11-25 and Sec. 6-11-25	Plan No. 2
(c) Between Sec. 5-11-25 and Sec. 6-11-25	Plan No. 3
(d) Between Sec. 5-11-25 and Sec. 6-11-25	Plan No. 4
(e) Between Sec. 5-11-25 and Sec. 8-11-25	Plan No. 5
(f) Between Sec. 6-11-25 and Sec. 7-11-25	Plan No. 6
(g) Between Sec. 6-11-25 and Sec. 5-11-25	Plan No. 7
(h) Between Sec. 6-11-25 and Sec. 36-10-26	Plan No. 8
3. Easement Agreements and Acknowledgement and Authorization Documents for:	
(a) SW $\frac{1}{4}$ Section 5-11-25 WPM. and S $\frac{1}{2}$ Sec. 6-11-25	Document No. 24,442
(b) NW $\frac{1}{4}$ Section 31-10-25 WPM.	Document No. 24,447
(c) E $\frac{1}{2}$ Sec. 36-10-26 WPM.	Document No. 24,445
(d) S $\frac{1}{2}$ and NE $\frac{1}{4}$ Sec. 7-11-25 WPM. and NW $\frac{1}{4}$ Sec. 5-11-25 and N $\frac{1}{2}$ Sec. 6-11-25 WPM.	Document No. 24,531
(e) SW $\frac{1}{4}$ Sec. 8-11-25 WPM.	Document No. 24,578
(f) SW $\frac{1}{4}$ Sec. 8-11-25 WPM.	Document No. 24,579
4. 3 Copies of Code Map	B-9615-1
5. 1 copy of General Conditions and Specifications	Copy No. 2
6. Virden Roselea Unit No. 2 Injection Plant & System	
(a) Tie-ins T2 T3 T4 and T 5	B 9628
(b) Tie-ins T6 T7 T8 and T 9	B 9629
(c) Intermediate Metering and Injection Well Tie-ins	B 9630
(d) Foundation and Grade Details	B 9666
(e) General Piping Layout	B 9667
(f) Filter Building & Injection Pump Piping Details	B 9668

11:20 a.m.
Sept. 2, 1966.

Mr. Gobert:

Mr. L. Brown - Chevron Standard Ltd. -
phoned re your query relating to
V.R.#2 and said Document #24578 refers
to the SW $\frac{1}{4}$ of Section 8-11-25, and
that this document covers an un-
divided 1/3rd interest as joint
tenants for Lisa and Adolph Bewer,
and Document #24579 covers an un-
divided 1/3rd interest of Rudolph
Bewer and an undivided 1/3rd interest
of Fred Bewer.

He also said to tell you, he hopes
to have a letter of confirmation in
the mail to you today, which should
be in the office by Tuesday morning.

A handwritten signature in cursive script, appearing to be 'J. D.', is written below the typed text.

August 31, 1966

Mr. M. J. Gobert

Mr. Stuart Anderson

Deputy Minister

Chevron Standard Limited

Application for an Operating Licence
under "The Pipe Line Act"

Location: NW/4 Sec. 31-Twp. 10-Rge. 25 WPM
NE/4 Sec. 36-Twp. 10-Rge. 26 WPM
W/2 Sec. 5 -Twp. 11-Rge. 25 WPM
E/2 & NW/4 Sec. 6-Twp. 11-Rge. 25 WPM
S/2 Sec. 7 -Twp. 11-Rge. 25
SW/4 Sec. 8 -Twp. 11-Rge. 25 WPM

Further to our memos of October 7, 1965 and October 14,
1965, attached herewith are:

1. 3 copies of Operating Licence No. 17.
2. 3 prints of plan registered as Plan 1245 in the
Brandon Land Titles Office.

The requirements of Construction Permit No. 14, authorized
by Order-in-Council No. 1511/65, have been complied with and the
necessary documents and data filed in this office.

If the Operating Licence is granted, kindly return original
and one copy to this office, together with the 3 approved prints
of Plan 1245.



M. J. Gobert

MJG/js
Att.



CHEVRON STANDARD LIMITED

MEDICAL ARTS BUILDING, 329A - 6TH AVENUE S.W., CALGARY, ALBERTA

W. J. KENNEDY
LAND SUPERINTENDENT
CALGARY DIVISION

September 6, 1966

Application - Operating License
for Pipe Line System
Virден-Roselea Unit #2
SW $\frac{1}{4}$ 8-13-25 WPM
Our Files: 24578 and 24579

Mr. J. Gobert
Assistant Deputy Minister
Department of Mines and Natural Resources
Norquay Building
Winnipeg 1, Manitoba

Dear Sir:

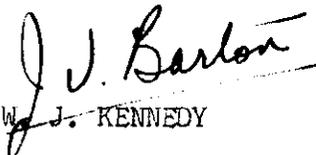
This will confirm the telephone conversation you had with our Mr. L. D. Brown of the Virден Office. According to our records the above discribed parcel is held as follows:

- (a) Adolf Frederick Beyer and Liese Helene Beyer both of Box 744, Virден have an undivided $\frac{1}{3}$ interest as Joint Tenants and not as Tenants in common.
- (b) Rudolf Gerhard Beyer and Frederick Adolf Beyer both of Box 744, Virден have an undivided $\frac{1}{3}$ interest each.

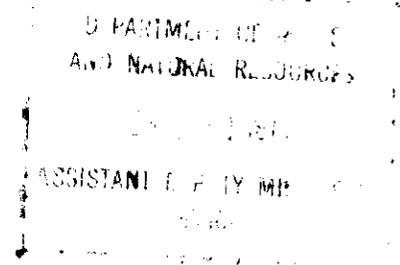
Adolf Frederick Beyer as in (a) above and Frederick Adolf Beyer as in (b) above are one and the same person.

We trust this is the information you required.

Yours very truly,


W. J. KENNEDY

JVB/dr





PROVINCE OF MANITOBA

HIGHWAYS DEPARTMENT

DEPUTY MINISTER'S OFFICE
WINNIPEG 1

August 29, 1966

Mr. M. J. Gobert,
Ass't Deputy Minister,
Dept. of Mines and Natural Resources,
1010 Norquay Bldg.,
401 York Ave.,
WINNIPEG 1, Manitoba.

Re: Chevron Standard Limited -
"As Built" plans,
Section 31 - 10 - 25 W
Section 36 - 10 - 26 W
Sections 5,6,7 & 8 - 11 - 25W.

Dear Sir:

We wish to acknowledge your letter dated August 19, 1966
and prints of plans --

Plan No. 1245 B.L.T.O.

Plans 1 to 8 inclusive - Virden - Roselea Unit #2

These road allowance crossings were approved by our letter
dated September 29, 1965.

approval of the detailed plans is given herewith, and three
prints of each of the above plans are being forwarded to you.

Yours very truly,

L. W. Blackman, P. Eng.,
Assistant Deputy Minister.

/ml

D. PARSONS
AND N. J. R. BURGESS
AUG 30 1966
ASSISTANT DEPUTY MINISTER'S
OFFICE

THE PIPE LINE ACT

(Statutes of Manitoba, 1954, Chapter 26)

OPERATING LICENCE NO.17

WHEREAS, Section 5 of The Pipe Line Act, Statutes of Manitoba, 1954, Chapter 26, provides as follows:

"5. Except as otherwise provided in this Act, no person shall begin the construction of a pipe line, or any section thereof, unless the minister has granted a construction permit as hereinafter provided, authorizing the construction";

AND WHEREAS, Section 19 of the said Act provides as follows:

"19. (1) No person shall operate a pipe line, whether constructed before or after the coming into force of this Act, until he has applied for, and obtained from, the minister an operating licence authorizing the operation of the pipe line in accordance with the licence and amendments thereto.

(2) On or before making application for an operating licence, the applicant shall supply the minister with such complete and detailed plans and specifications as may be prescribed by the regulations, and such other information as the minister may require.

(3) If the applicant has complied in all respects with the construction permit including the conditions, if any, attached thereto, and with this Act and the regulations, the minister shall issue the operating licence.";

AND WHEREAS, The Lieutenant-Governor-in-Council by Order No.1511/65 approved and ordered the Minister of Mines and Natural Resources to grant a construction permit to Chevron Standard Limited;

AND WHEREAS, I, the Minister of Mines and Natural Resources, on the 19th day of October, A.D., 1965, did grant Construction Permit No.14 to Chevron Standard Limited for pipe lines to be located in, the Northwest quarter of Section 31, Township 10, Range 25, the Northeast quarter of Section 36, Township 10, Range 26, the West Half of Section 5, the East Half, and the Northwest Quarter of Section 6, the South Half of Section 7, and the Southwest quarter of Section 8, all in Township 11, Range 25, all West of the Principal Meridian.

AND WHEREAS, Chevron Standard Limited has made application for an operating licence for certain pipe lines constructed under the authority of Construction Permit No.14 and as more particularly shown on the plan registered as Plan 1245 in the Brandon Land Titles Office;

AND WHEREAS, Chevron Standard Limited has complied with the provisions of The Pipe Line Act and the requirements of Construction Permit No.14.

AND WHEREAS, I, the Minister of Mines and Natural Resources grant operating licence No.17 to Chevron Standard Limited for pipe lines located in, the Northwest quarter of Section 31, Township 10, Range 25, the Northeast quarter of Section 36, Township 10, Range 26, the West half of Section 5, the East Half, and the Northwest Quarter of Section 6, the South Half of Section 7, and the Southwest quarter of Section 8, all in Township 11, Range 25, all West of the Principal Meridian, subject to all the provisions of The Pipe Line Act.

DATED at Winnipeg, Manitoba, this 6th day of September, 1966.

Orig. Sgd.
The Hon. GURNEY EVANS.
Minister of Mines and
Natural Resources.

DEPARTMENT OF MINES AND NATURAL RESOURCES
ROUTE SLIP

TO	FROM
TO	FROM

- For your approval or revision
- For your information
- Please take action
- Extracts of minutes for your information and action
- Please draft reply for signature of
- Reply direct with copy to me
- Please supply data for my reply
- Return with comments and/or recommendations
- Investigate and report
- Please sign
- Please return
- Please see me
- Please phone

Date _____ Subject _____

Message *Operations Lic*

1. ~~3 reports of plans to Deputy Minister Highways Dept for approval.~~

2. *Prepare Operations license and send over to Deputy Minister for approval.* (4 copies)

MNR-A-94

Use reverse side if necessary

Suggested Operating Licence No. 17 See Section 17

THE PIPE-LINE ACT

(Statutes of Manitoba, 1954, Chapter 26)

OPERATING LICENCE NO. 17

WHEREAS, Section 5 of The Pipe Line Act, Statutes of Manitoba, 1954, Chapter 26, provides as follows:

"5. Except as otherwise provided in this Act, no person shall begin the construction of a pipe line, or any section thereof, unless the minister has granted a construction permit as hereinafter provided, authorizing the construction";

AND WHEREAS, Section 19 of the said Act provides as follows:

"19. (1) No person shall operate a pipe line, whether constructed before or after the coming into force of this Act, until he has applied for, and obtained from, the minister an operating licence authorizing the operation of the pipe line in accordance with the licence and amendments thereto.

(2) On or before making application for an operating licence, the applicant shall supply the minister with such complete and detailed plans and specifications as may be prescribed by the regulations, and such other information as the minister may require.

(3) If the applicant has complied in all respects with the construction permit including the conditions, if any, attached thereto, and with this Act and the regulations, the minister shall issue the operating licence.";

AND WHEREAS, The Lieutenant-Governor-in-Council by Order No. 1511/65 approved and ordered the Minister of Mines and Natural Resources to grant a construction permit to ~~The California Standard Company~~;

AND WHEREAS, I, the Minister of Mines and Natural Resources, on the 19th day of October, AD, 1965, did grant Construction Permit No. 14, to ~~The California Standard Company~~ ^{California Standard Company} for pipe lines to be located in Northwest Quarter of Section 31, Township 10, Range 25, the Northeast Quarter of Section 36, Township 10, Range 26, the Northeast Quarter of Section 36, Township 10, Range 26, the West Half of Section 5, the East Half, and the North West Quarter of Section 6, the South Half of Section 7, and the Southwest Quarter of Section 8, all; in Township 11, Range 25, all West of the Principal Meridian.

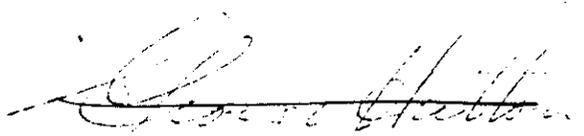
AND WHEREAS, ~~The California Standard Company~~ ^{California Standard Company} has made application for an operating licence for certain pipe lines constructed under the authority of Construction Permit No. 14 and as more particularly shown on the plan registered as Plan in the Brandon Land Titles Office;

AND WHEREAS, ~~The California Standard Company~~ ^{California Standard Company} has complied with the provisions of The Pipe Line Act and the requirements of Construction Permit No. 14.

NOW THEREFORE, I, the Minister of Mines and Natural Resources, grant Operating Licence No. 17 to ~~The California Standard Company~~ ^{California Standard Company} for pipe lines located in (repeat description as above)

all West of the Principal Meridian, subject to all the provisions of The Pipe Line Act.

DATED at Winnipeg, Manitoba, this day of , 1965.



~~acting~~ Minister of Mines and Natural Resources.

CONSTRUCTION PERMIT NO.14

WHEREAS, Chevron Standard Limited, as Interim Operator of the proposed Virden-Roselea Unit No.2, has made application to the Minister of Mines and Natural Resources, under Section 6, of "The Pipe Line Act", being Chapter 26 of the Statutes of Manitoba, 1954, for a construction permit for pipe lines to be located in, the Northwest Quarter of Section 31, Township 10, Range 25, the Northeast Quarter of Section 36, Township 10, Range 26, the West Half of Section 5, the East Half, and the Northwest Quarter of Section 6, the South Half of Section 7, and the Southwest Quarter of Section 8, all in Township 11, Range 25, all west of the Principal Meridian.

AND WHEREAS, the Lieutenant-Governor-in-Council by Order No. 1511 /65 approved and ordered the Minister of Mines and Natural Resources to grant a construction permit.

NOW, THEREFORE, I, the Minister of Mines and Natural Resources hereby grant a construction permit to Chevron Standard Limited for pipe lines to be located in, the Northwest Quarter of Section 31, Township 10, Range 25, the Northeast Quarter of Section 36, Township 10, Range 26, the West Half of Section 5, the East Half, and the Northwest Quarter of Section 6, the South Half of Section 7, and the Southwest Quarter of Section 8, all in Township 11, Range 25, all west of the Principal Meridian, subject to the following conditions:

1. This permit is issued subject to all the provisions of "The Pipe Line Act", and the requirements contained on the reverse side of this permit.
2. That Chevron Standard Limited or it's successor, in respect of the construction of the said pipe lines, shall take every reasonable measure to ensure that the top soil is separately removed and separately replaced in its original position insofar as it is reasonably practicable so to do.

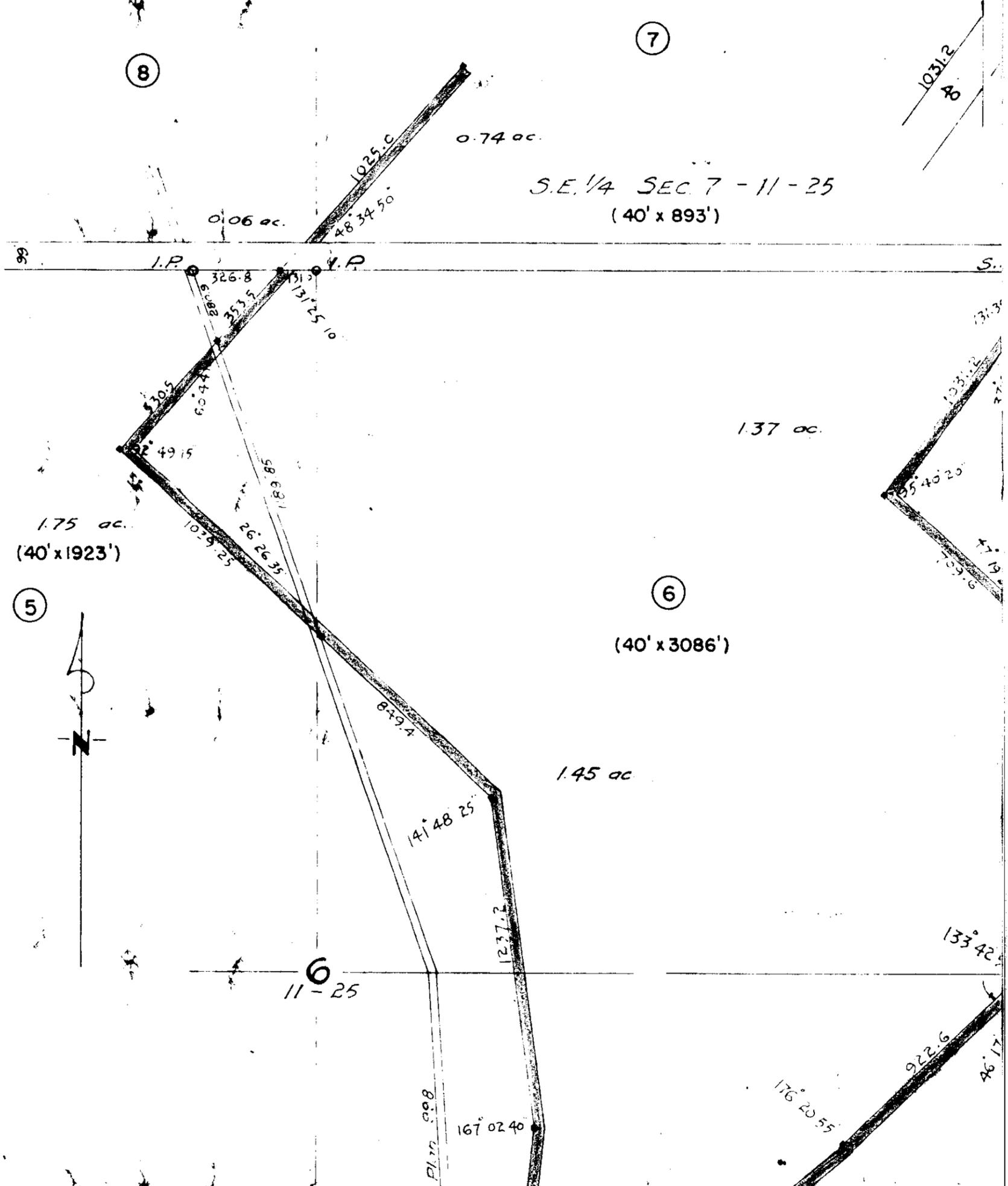
Dated At Winnipeg, Manitoba this 19th day of October, A.D., 1965.

MINISTER OF MINES AND
NATURAL RESOURCES.

PARCEL NUMBERS BY QUARTER SECTION

PARCEL No.	ACREAGE	SURFACE OWNER AND OCCUPIER
1	1.94	DENO FONTANA
2,4	7.86	SAMUEL JAMES SOLUK MARGARET ELLINOR SOLUK
3,5,6,7,8	8.74	ANNE BENKENDORF, EXECUTRIX OF THE ESTATE OF HENRY BENKENDORF
9	0.79	ADOLF FREDERICK BEWER LIESE HELENE BEWER } 1/3 RUDOLF JERHARD BEWER FREDERICK ADOLF BEWER } 2/3
10	1.83	LAWRENCE HENRY Mc DOUGALL

Note:
 Right-of-Way is shown hereon colored pink and is 40 ft wide.
 Survey monuments were found at all points shown thus: O
 Iron bars 5/8" dia x 16" are planted at all points shown thus: ■
 Distances are in feet and decimals of a foot and are check-chained.
 Distances are measured from bar to bar unless otherwise shown.

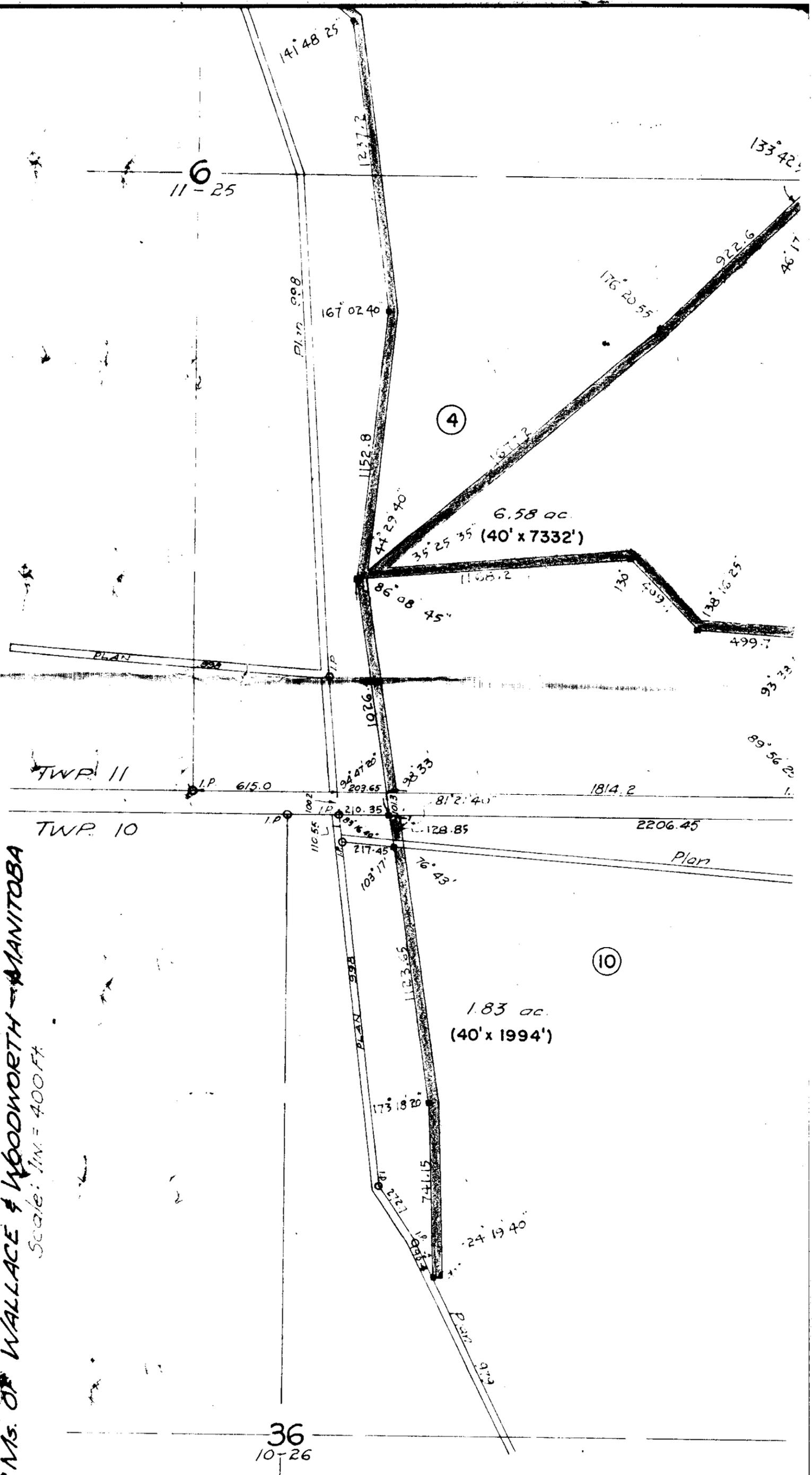


CHEVRON STANDARD LTD.

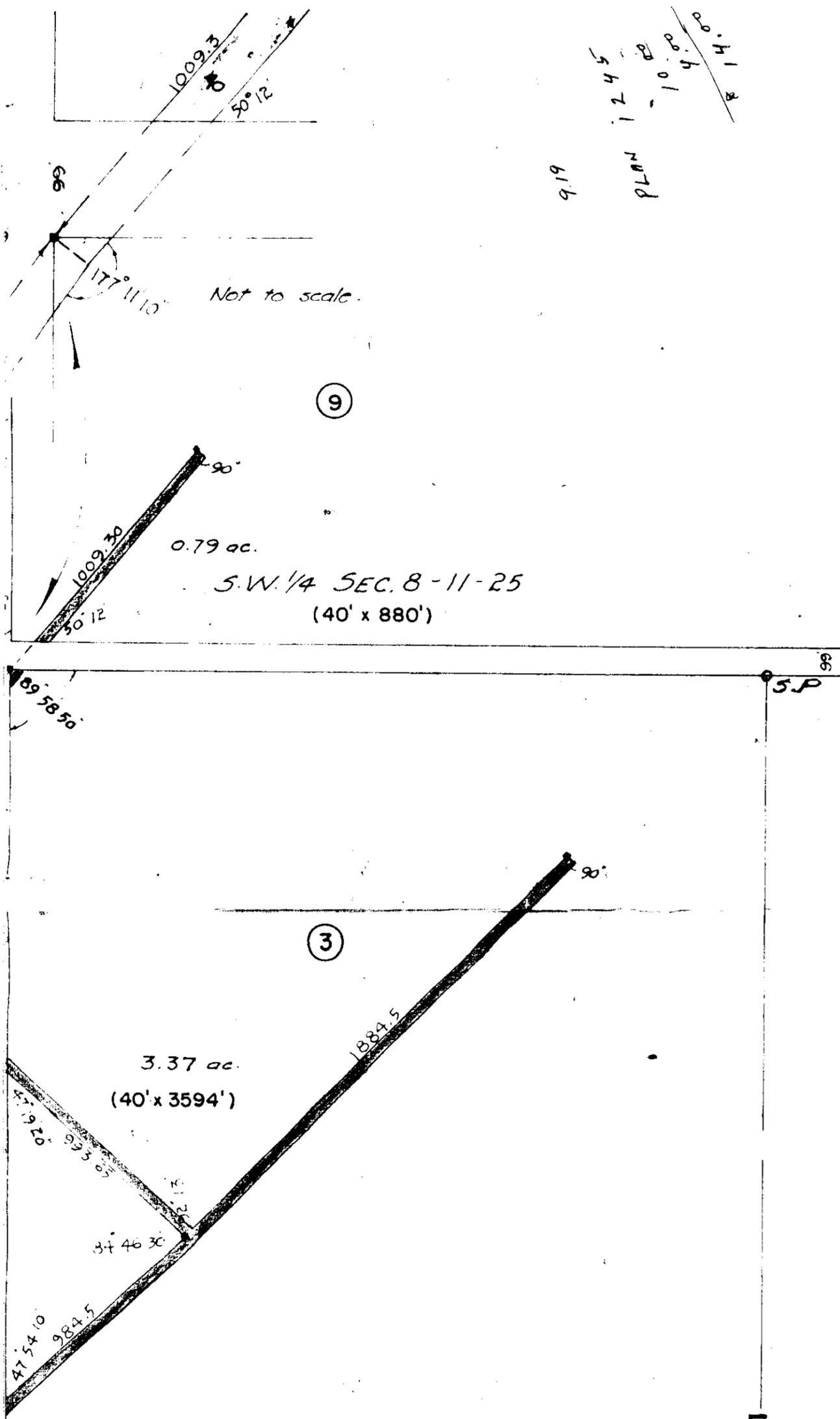
VIRDEN ROSELEA UNIT No.2 - WATER INJECTION LINES

PLAN OF SURVEY OF PIPELINE RIGHT-OF-WAY,
IN N.W. 1/4 SEC. 31, TWP. 10, RGE. 25 W.P.M.,
N.E. 1/4 SEC. 36, TWP. 10, RGE. 26 W.P.M.,
N.W. 1/4 & S.W. 1/4 SEC. 5, TWP. 11, RGE. 25 W.P.M.,
N.W. 1/4, N.E. 1/4 & S.E. 1/4 SEC. 6, TWP. 11, RGE. 25 W.P.M.,
S.W. 1/4 & S.E. 1/4 SEC. 7, TWP. 11, RGE. 25 W.P.M. AND
S.W. 1/4 SEC. 8, TWP. 11, RGE. 25 W.P.M.
INCLUDING PARTS OF PLANS 998 & 1050 BDN.
R.Ms. OF WALLACE & WOODWORTH - MANITOBA

Scale: 1 in. = 400 Ft.



36
10-26



9.19
 PLAN 1245
 10.00
 4.00
 14.00

REGISTERED IN THE LAND TITLES OFFICE FOR
 THE BRANDON LAND REGISTRATION DISTRICT AS
 PLAN N^o 1245 at 9.19 AM the 14th day of January AD 1966

E. J. Finch
 District Registrar
 Approved
 1st December 1965
L. E. Bantley
 Dep. Examiner of Surveys
 Approved on behalf of the Dept. of Mines and
 Natural Resources, Province of Manitoba.
Frank Allen
 Deputy Minister

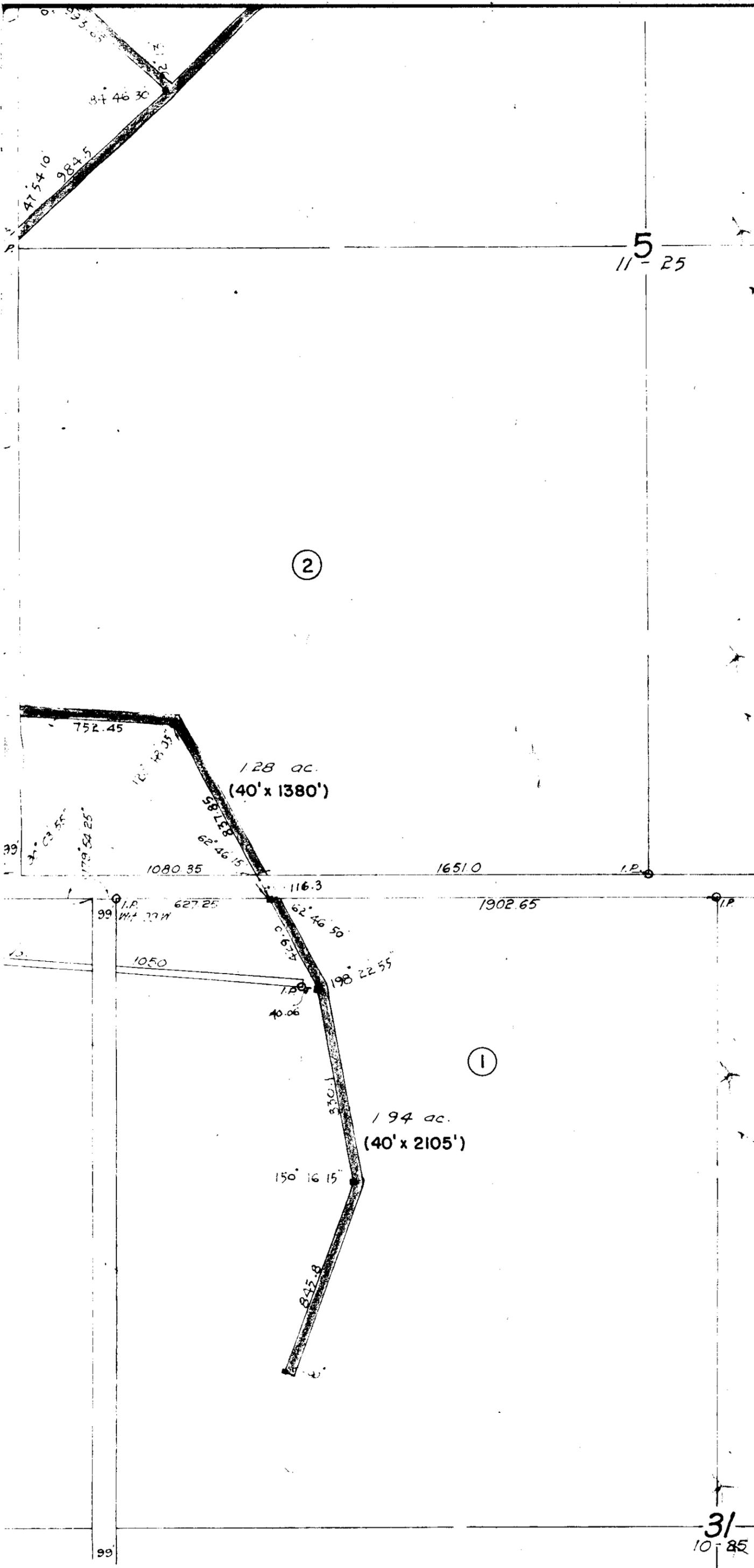
Approved on behalf of the Highways Dept.
 Province of Manitoba.
[Signature]
 Deputy Minister
 Dated: Aug 29/66
[Signature]

City of Winnipeg, Manitoba Land Surveyor
 present at and did personally superintend
 plan, that the survey and plan are
 was made between September 24th &
 1965
N. L. Millay
 M. L. S.

11-5
 25

and 1966.

Dated: 14/1/66



5
11-25

I, Allan Calder Findlay, of the City of Winnipeg, Manitoba Land Surveyor, make oath and say that I was present at and did personally superintend the survey represented by this plan, that the survey and plan are correct and that the survey was made between September 24th & October 15th, 1965.

Sworn before me at Winnipeg this 21st day of October A.D. 1965

A. C. Findlay

A. C. Findlay
M. L.S.

A Commission for Oaths
My Commission expires Dec. 22nd, 1966.

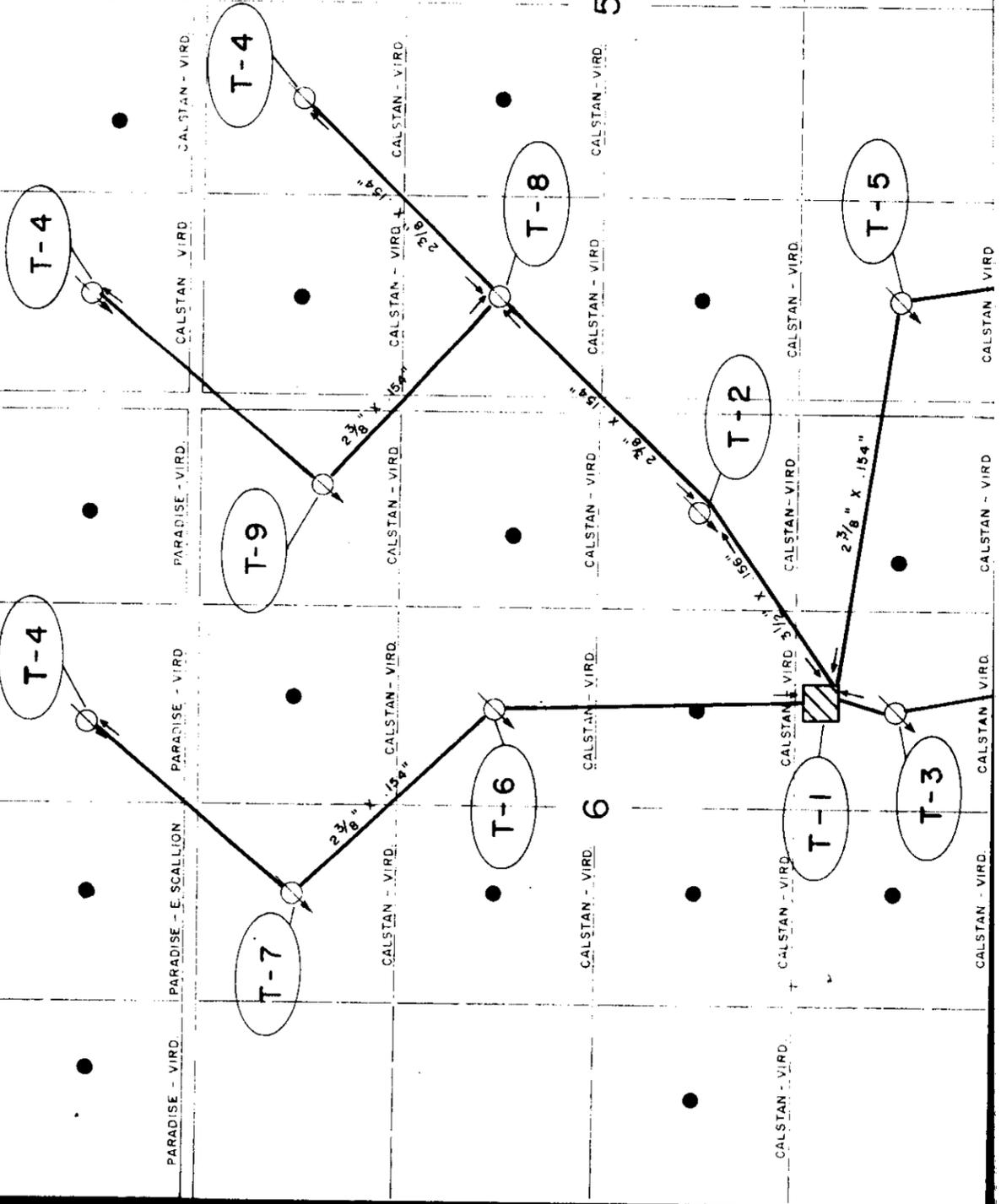
31
10-85

ASSINIBOINE RIVER

BAYSEL - H.B. - ROSE

8

5



7

6

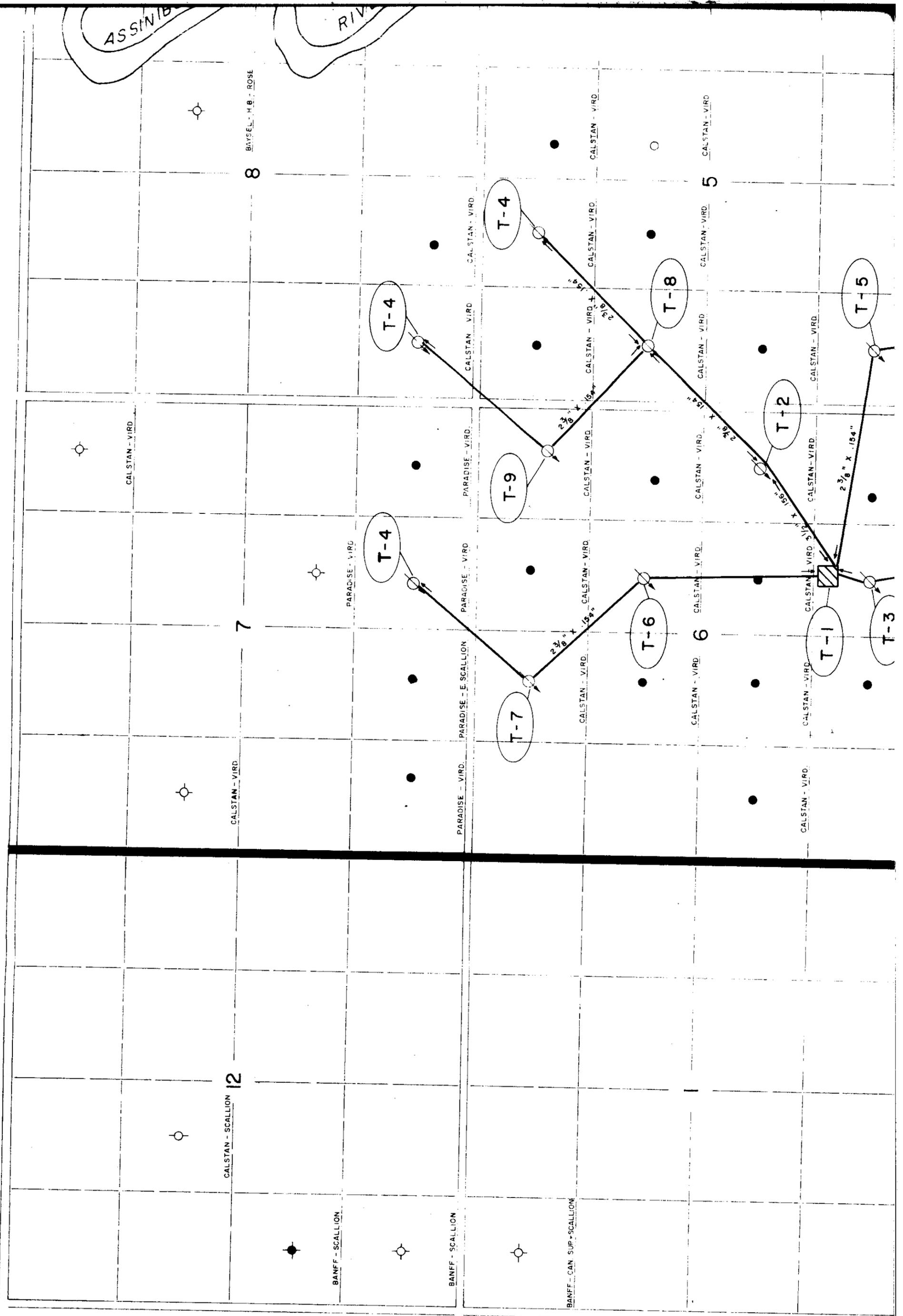
12

CALSTAN - SCALLION

BANFF - SCALLION

BANFF - SCALLION

BANFF - CAN SUP - SCALLION



ASSINIBOIA RIVER

BAYSELE, H.B. - ROSE
8

CALSTAN - SCALLION 12

BANFF - SCALLION

BANFF - SCALLION

BANFF - CAN SUP - SCALLION

CALSTAN - VIRD

CALSTAN - VIRD

PARADISE - VIRD

PARADISE - VIRD

PARADISE - E. SCALLION

CALSTAN - VIRD

T-4

T-9

T-4

T-7

T-6

T-4

T-8

T-2

T-1

T-3

T-5

2 3/8" x 1 5/8"

2 3/8" x 1 5/4"

NS

AUTH BY

CHEVRON STANDARD LIMITED

VIRDEN ROSELEA UNIT No.2
INJECTION PLANT AND SYSTEM
SKETCH OF INJECTION LINES
CODE MAP

BY: C. M. H.

DATE: AUG. 1965

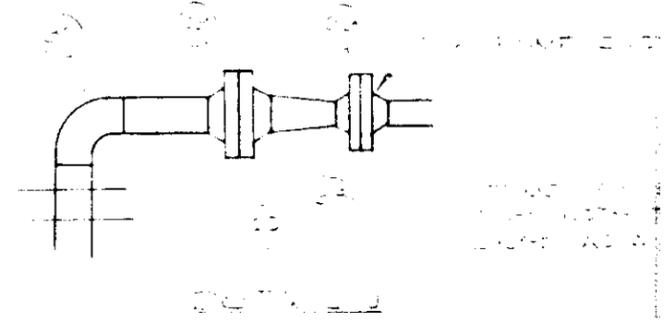
CHKD:

SCALE: 1" = 1000'

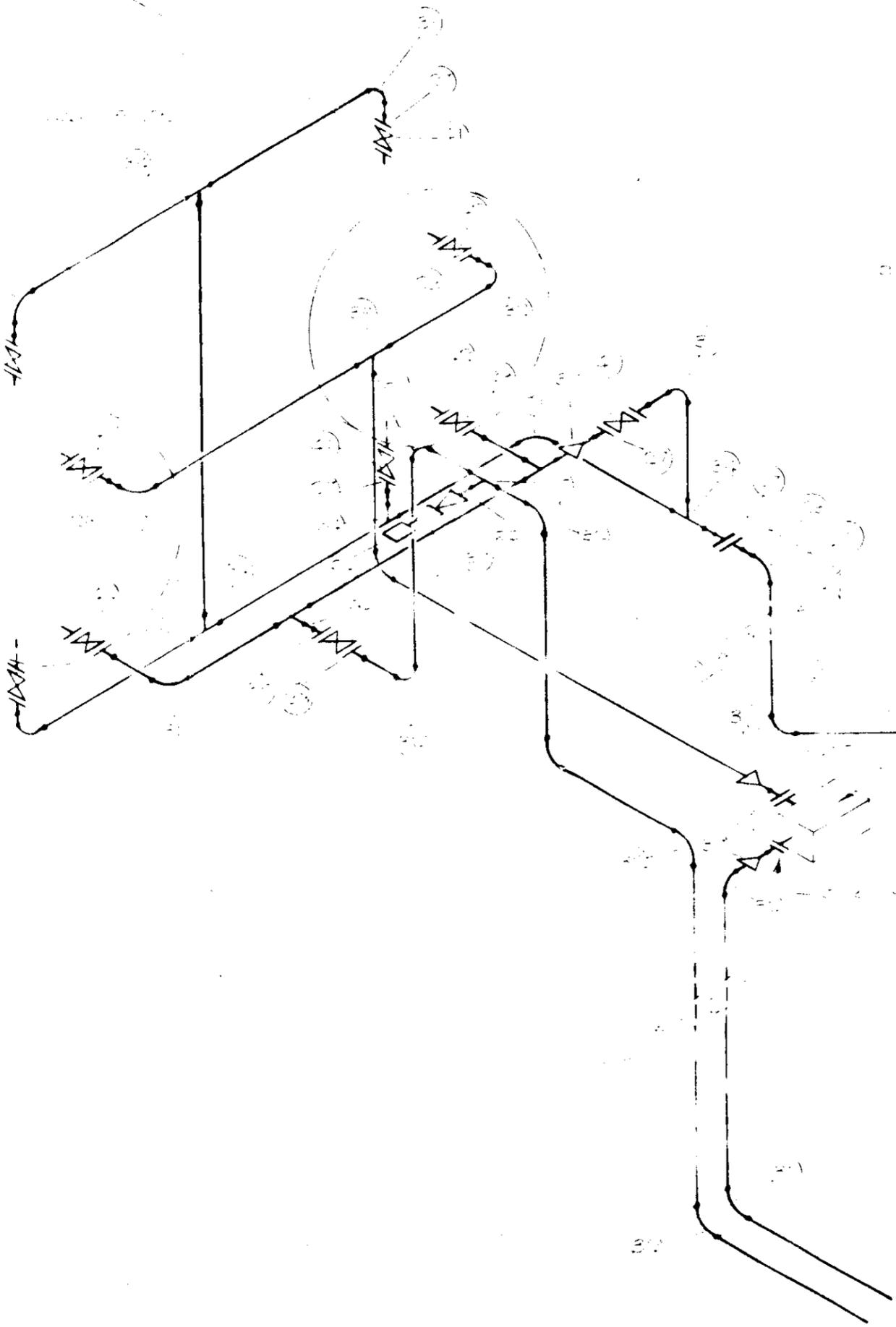
B-9615 - I

NOTES:

1. POINT POINT FROM ELEVATION PLANS
2. POINT POINT NETWORK OF LINES AND
3. POINT POINT NETWORK OF LINES AND
4. POINT POINT NETWORK OF LINES AND

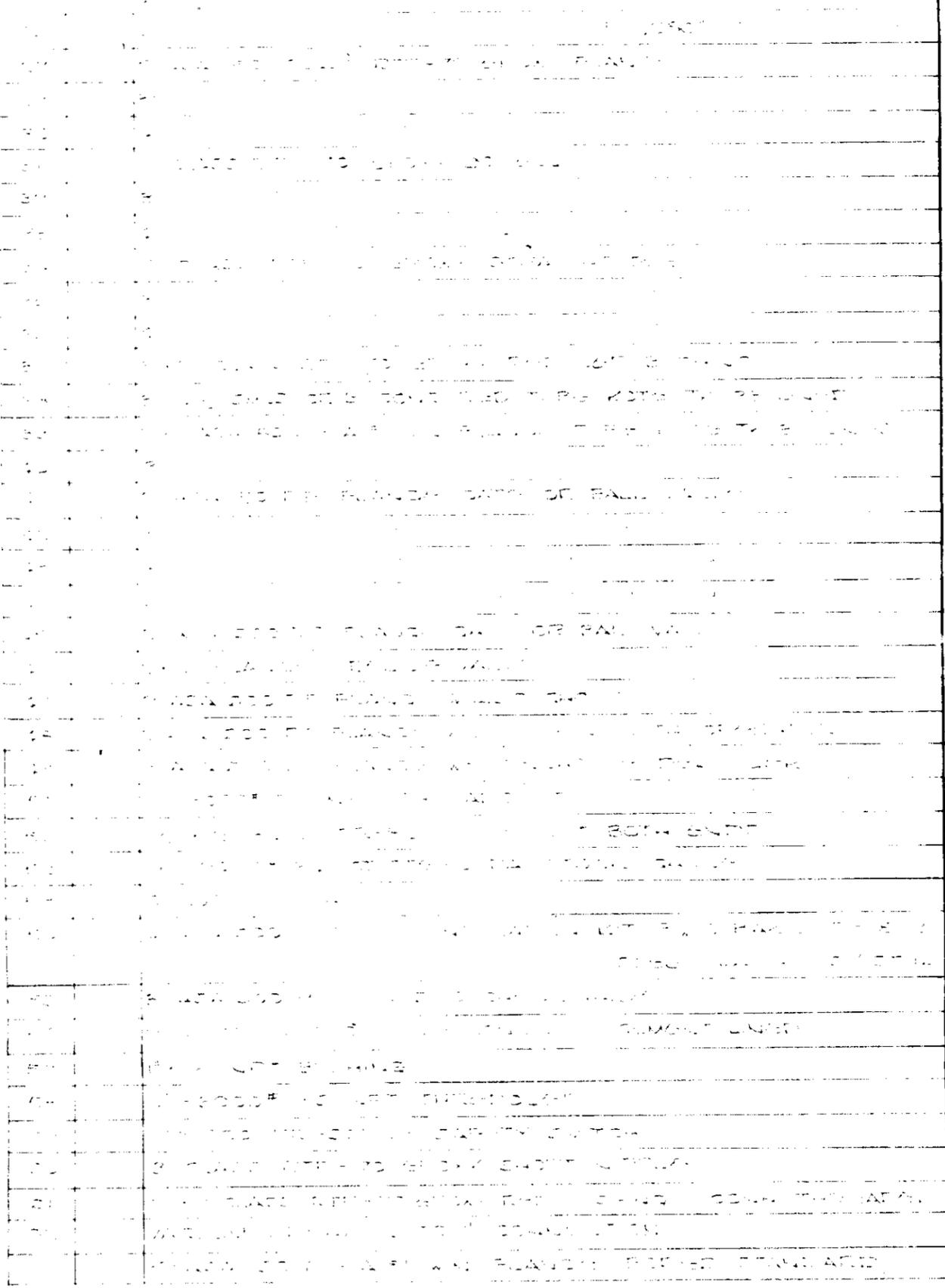


5. POINT POINT NETWORK OF LINES AND
6. POINT POINT NETWORK OF LINES AND



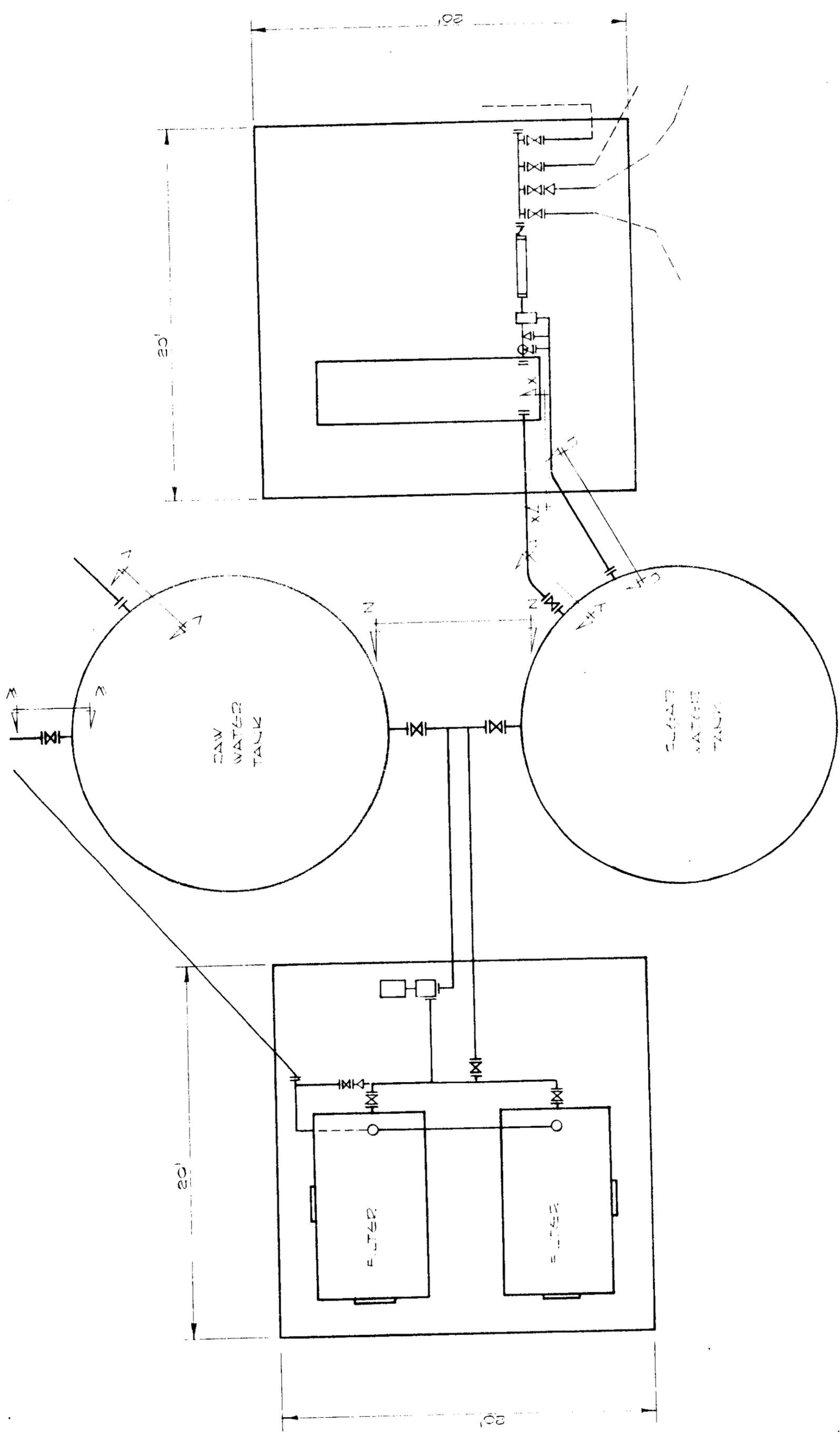
7. POINT POINT NETWORK OF LINES AND
8. POINT POINT NETWORK OF LINES AND

ISOMETRIC VIEW
PIPE AND DETAILS
PIPING SYSTEM

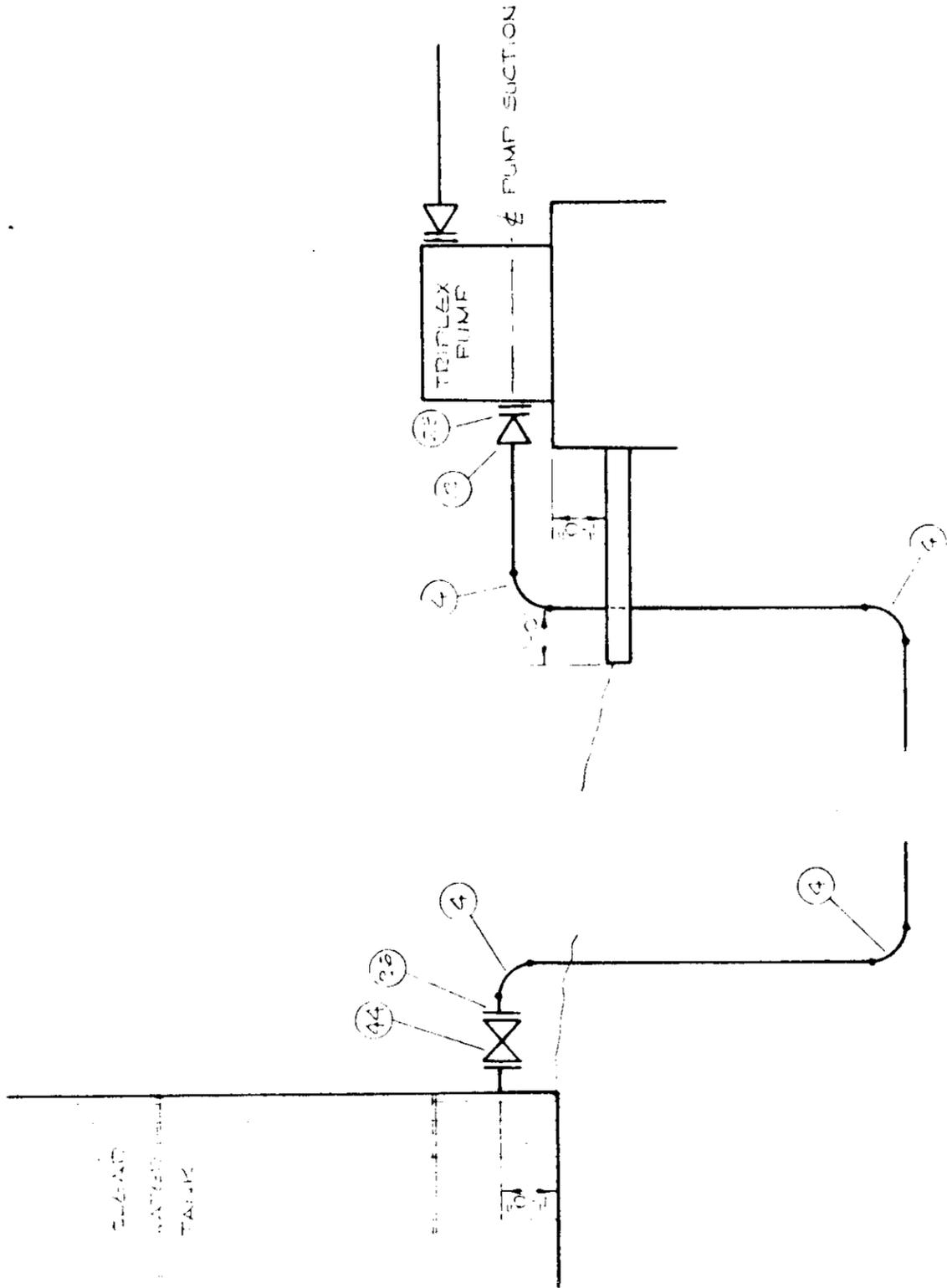


1. ALL DIMENSIONS WILL BE PERMITTED
 2. ALL DIMENSIONS WILL HAVE AN EXTENSION
 3. DIMENSIONS WILL BE IN METERS

NS		CHEVRON STANDARD LIMITED		
ION	AUTH BY			
		VIRDEN ROSELEA UNIT No. 2 INJECTION PLANT AND SYSTEM FILTER BUILDING & INJECTION PUMP PIPING DETAILS		
		BY: CMH	DATE: MAY 2008	B-9668
		CHKD:	SCALE: NONE	



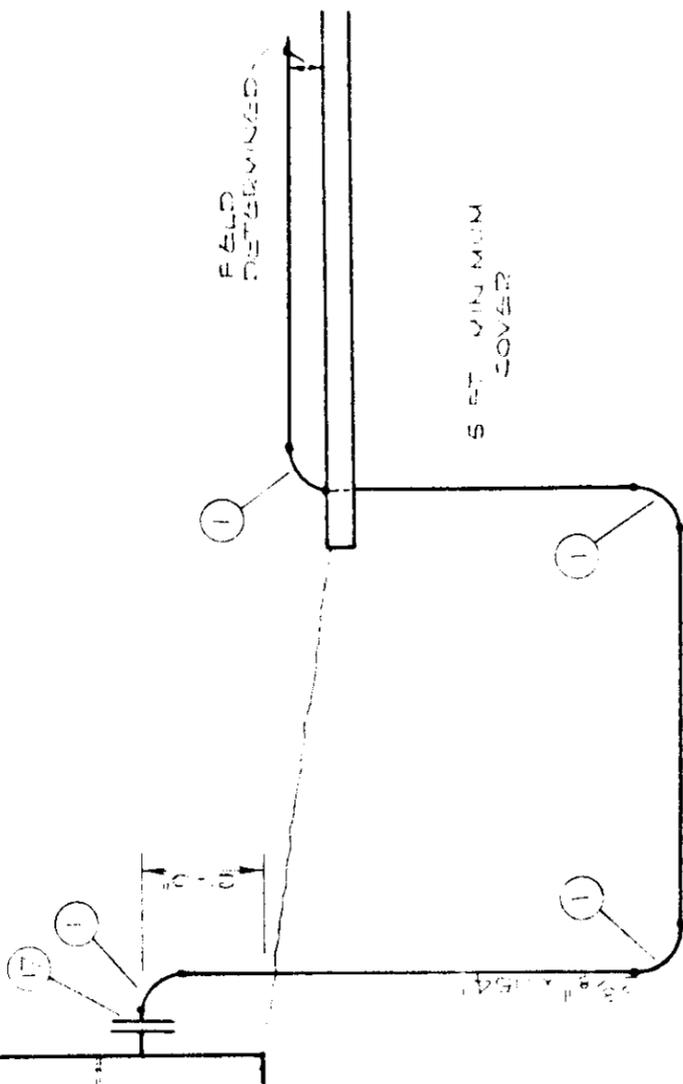
WATER TREATMENT PLANT



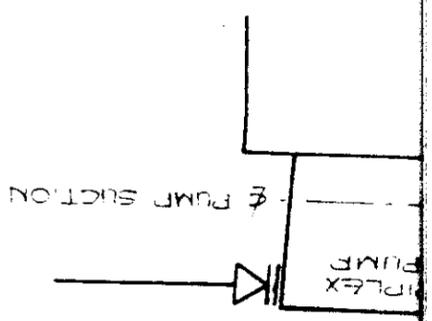
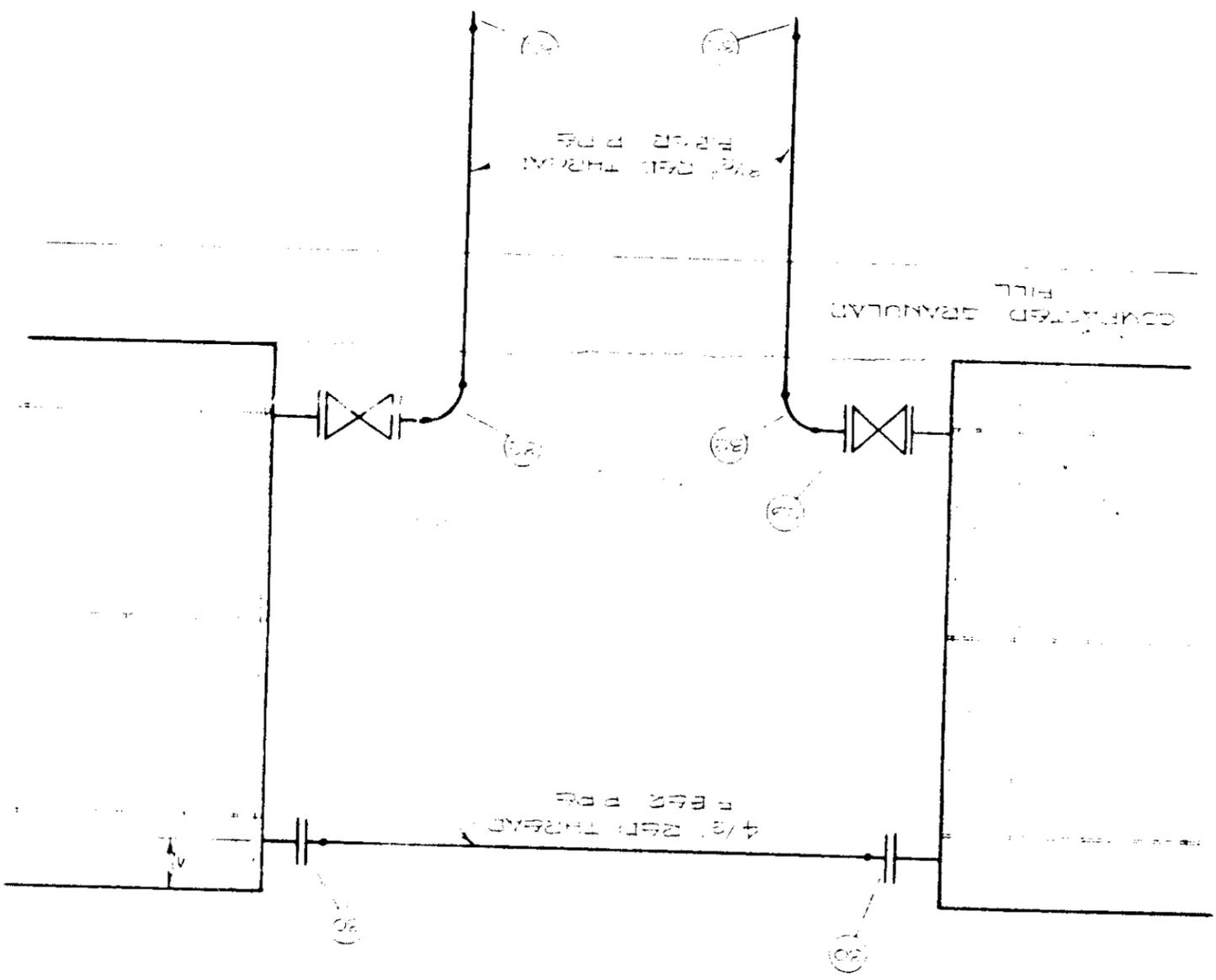
SECTION U-U
RETURN LINE

SECTION V-V
SUCTION LINE

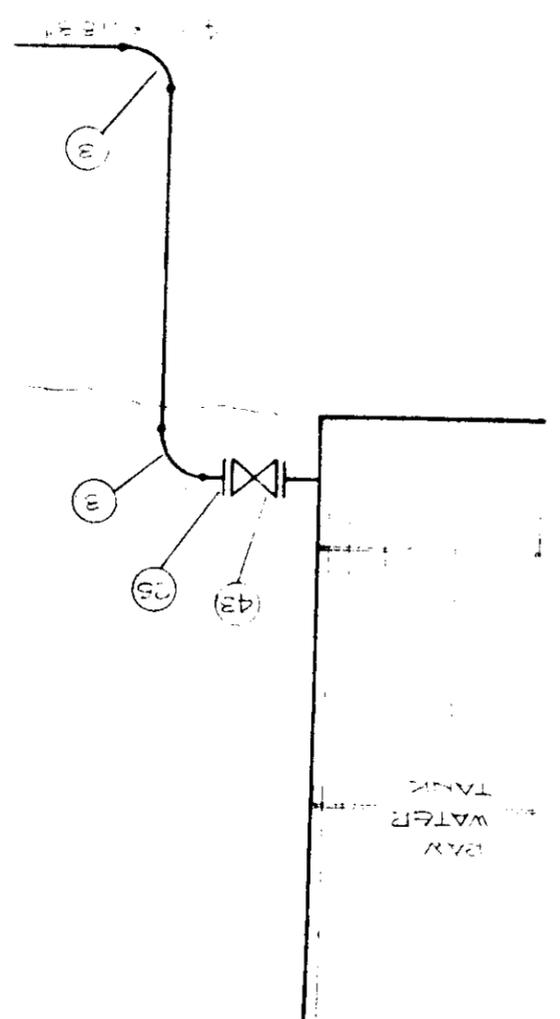
SECTION X-X
SUCTION PUMP SECTION P



SECTION Z-Z

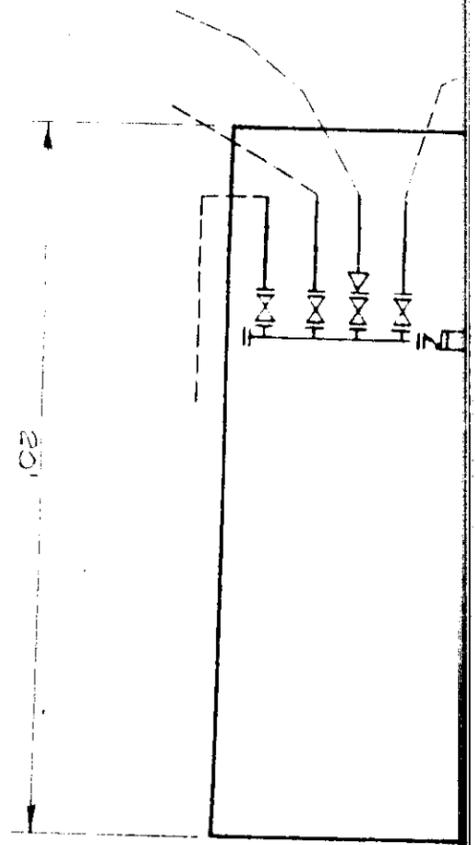
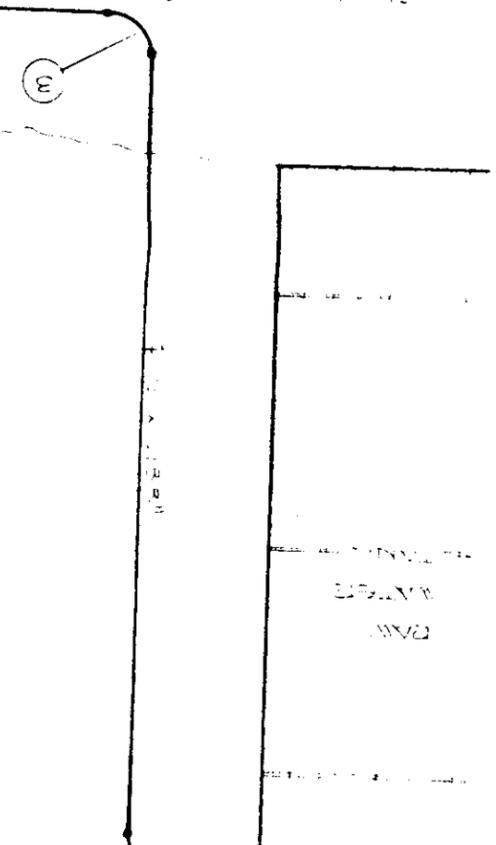


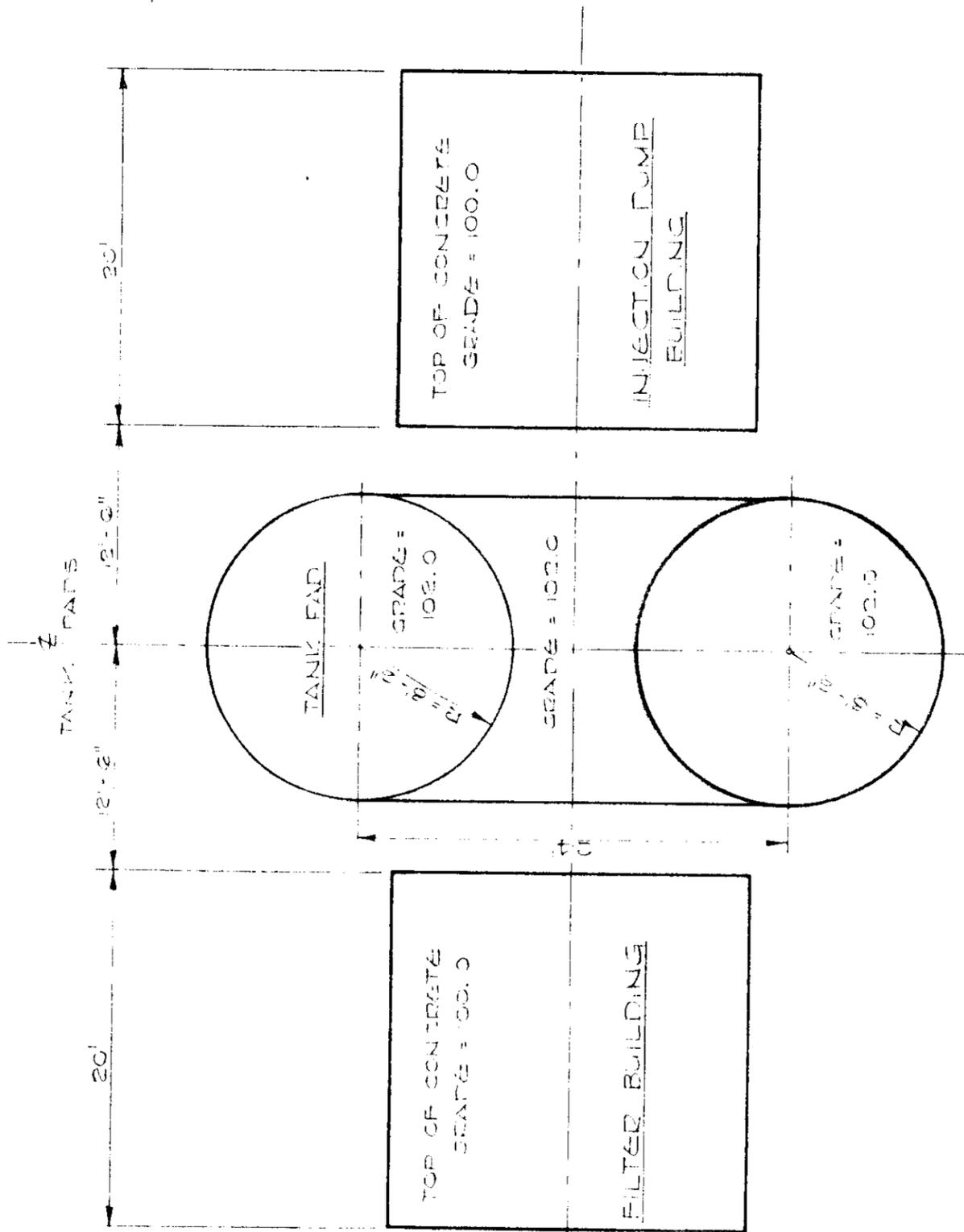
SECTION W-W
INLET PIPING



SECTION Y-Y
OVERFLOW PIPE

ON THE W-W SECTION, THE INLET PIPING TO THE RAW WATER TANK IS TO BE EXAMINED IN THE OVERFLOW SECTION.



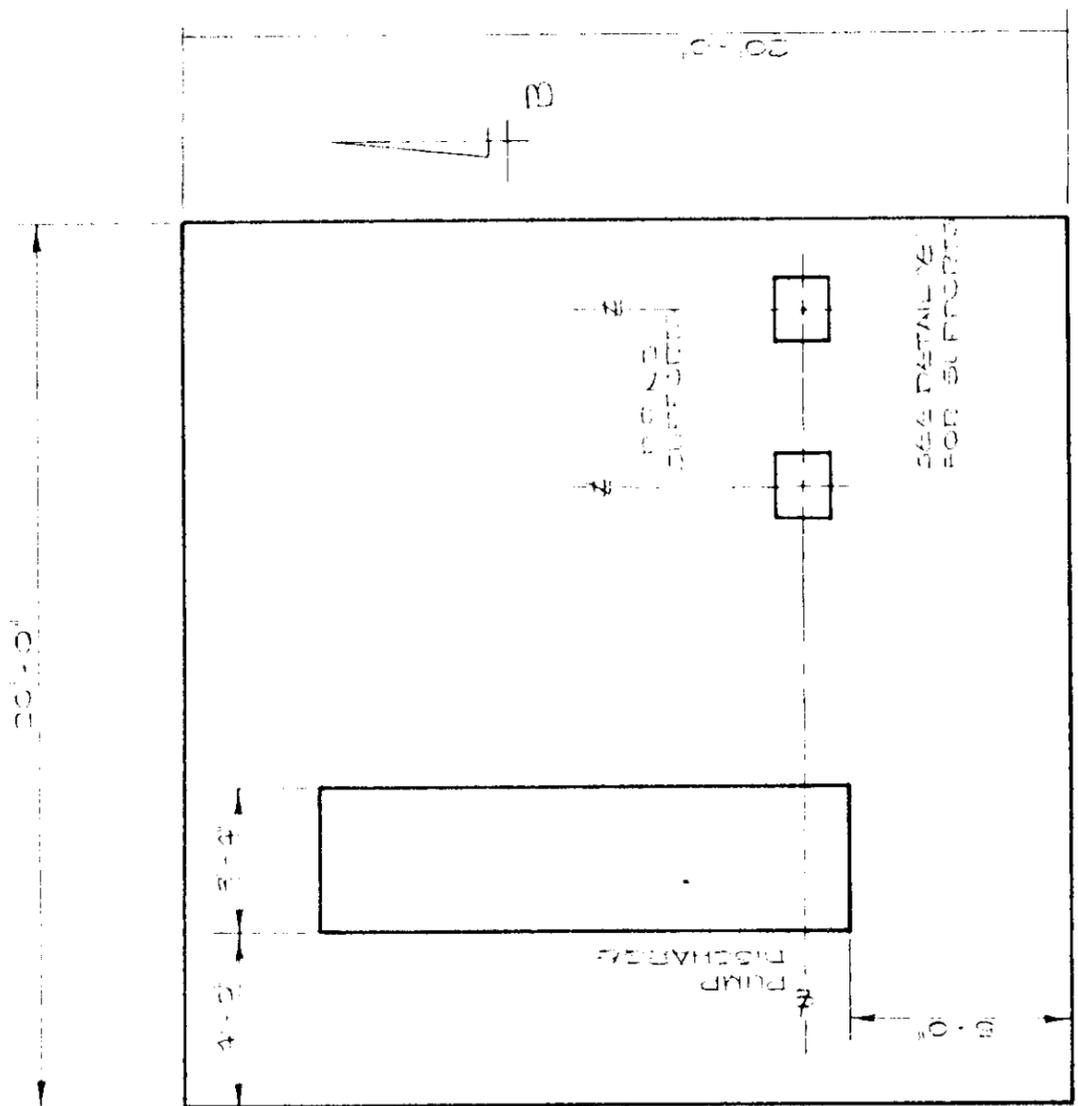


NOTES:

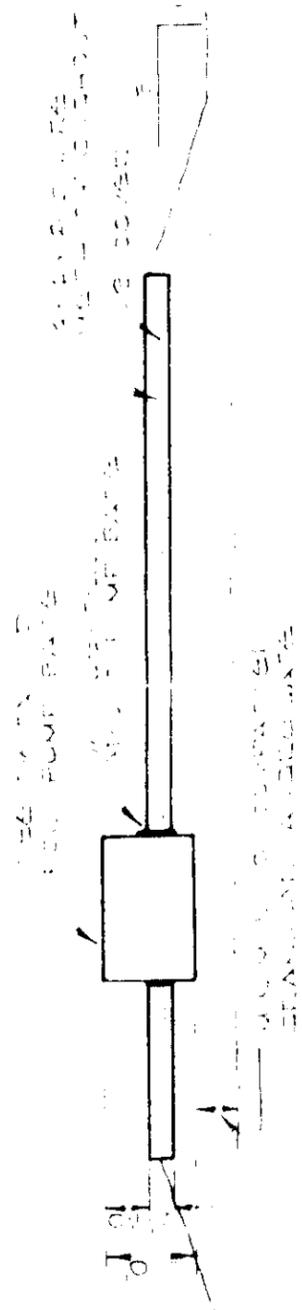
1. WOOD TANKS TO BE SET ON A 12" MINIMUM COMPACTED GRANULAR AGGREGATE BASE BUILDING CONCRETE SLAB GRADE OF 100.0 IS TO BE A MINIMUM OF 1" ABOVE THE NATURAL GROUND GRADE. THE GRADE DIFFERENTIAL SHALL BE CONTROLLED BY SPOTTS NOT TO EXCEED A 1 FT 5 IN A 10 FT RUN
2. DRAINAGE OF ALL PORTIONS OF THE AREA SHALL BE ADEQUATELY PROVIDED FOR

PLOT AND GRADE PLAN

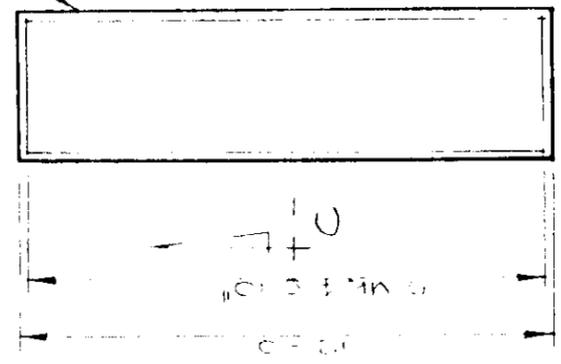
SCALE 1/4" = 1'-0"



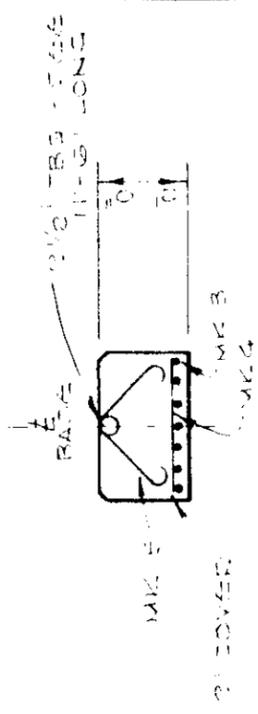
SCALE 1/4" = 1'-0"



SECTION A-A
SCALE 1/4" = 1'-0"



DETAIL 1/2
PUMP BASE
SCALE 1/4" = 1'-0"

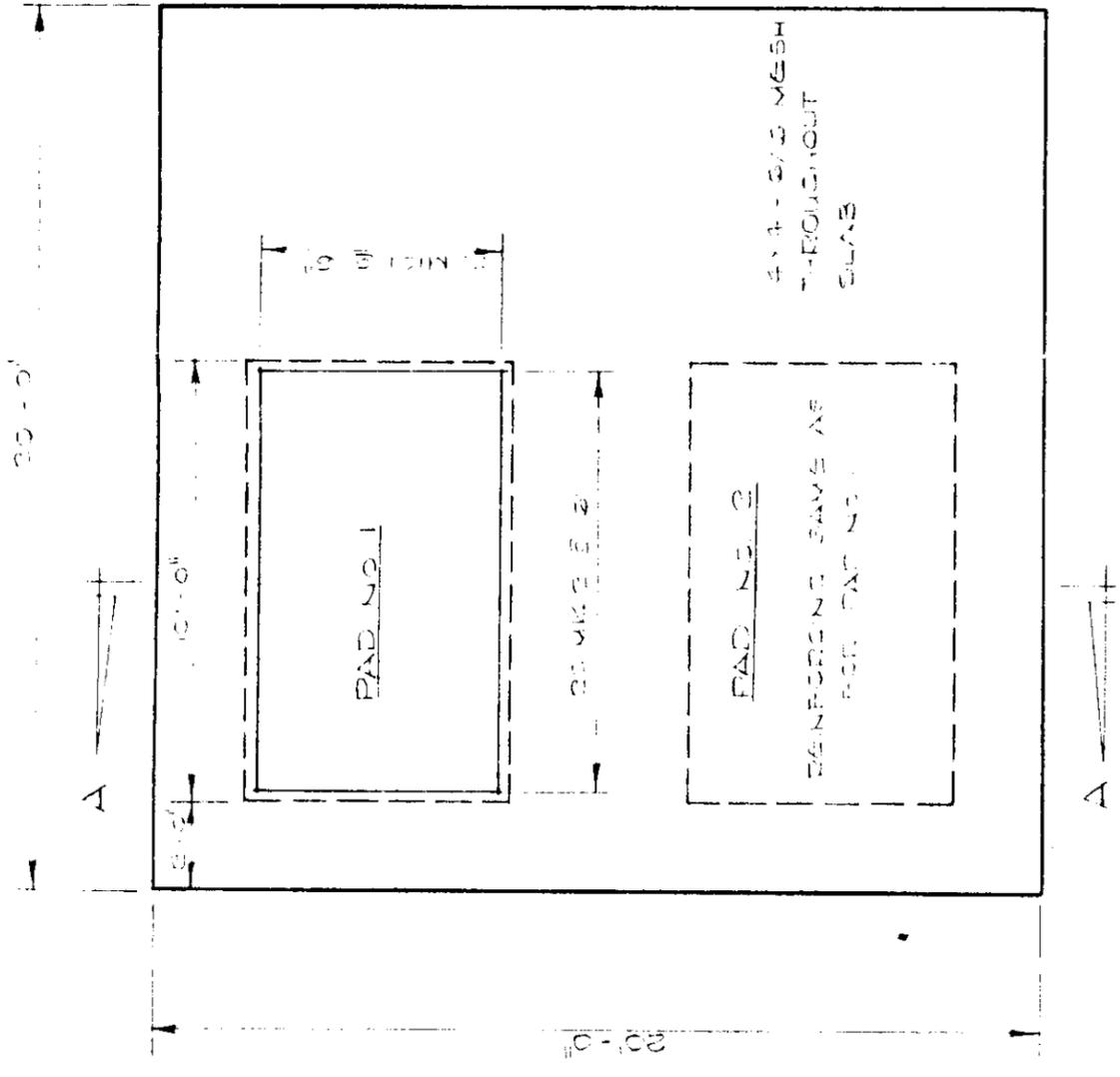


SECTION ON C-C
SCALE 1/4" = 1'-0"

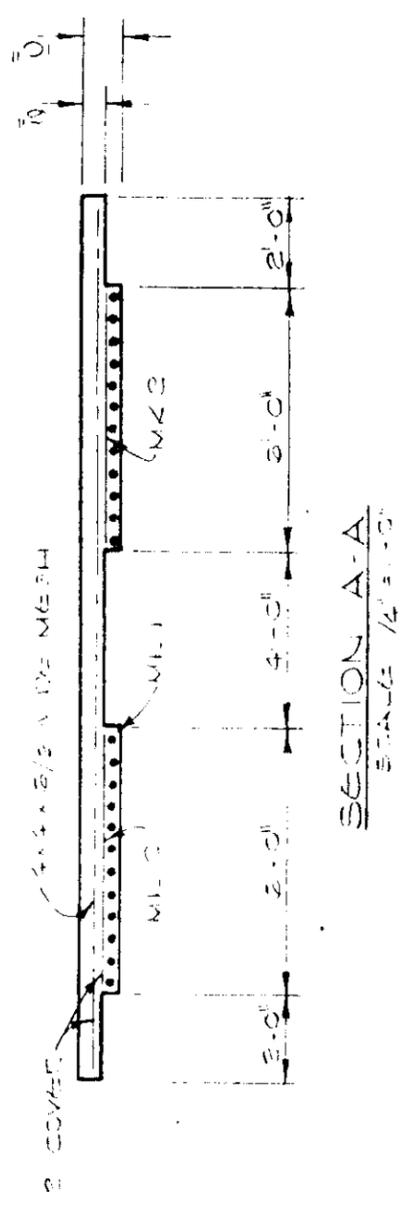
NOTES

1. PUMP AND PUMP BASE TO BE PLACED ON CONCRETE ON AND EXPOSED SURFACE.
2. CONCRETE TO HAVE MINIMUM 5000 PSI COMPRESSIVE STRENGTH.
3. PUMP ON 4" ON TYPICAL 12" ON PUMPS AND TO BE PERMANENTLY IN PLACE.
4. SEE DETAIL 1/2 FOR PUMP BASE AND SUPPORTS.
5. PUMP ON 4" ON TYPICAL 12" ON PUMPS AND TO BE PERMANENTLY IN PLACE.
6. SEE DETAIL 1/2 FOR PUMP BASE AND SUPPORTS.

INJECTION PUMP BUILDING
FOUNDATION DETAILS



SCALE 1/4" = 1'-0"



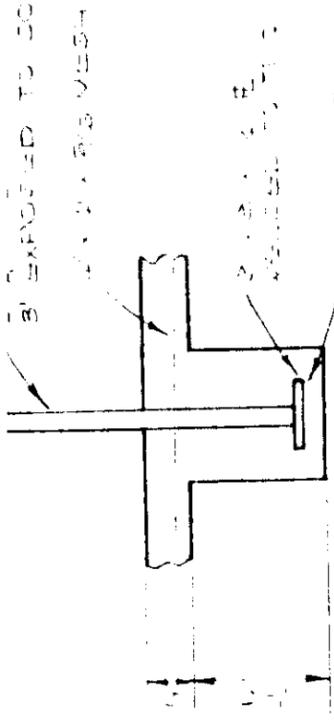
SECTION A-A
SCALE 1/4" = 1'-0"

NOTES:

1. SLAB TO BE PLACED ON MINIMUM 10" COMPACTED GRANULAR AGGREGATE
2. CONCRETE TO HAVE MINIMUM 3000 PSI 28 DAY COMPRESSIVE STRENGTH
3. BUILDING SLAB SECURED WITH RAM-SET FASTENERS
4. REBAR HAS NOT PREVIOUSLY BEEN INSTALLED 1'-0" X 1'-0" FLOOR OPENINGS IN THE CONCRETE SLAB SHALL BE LEFT AT THE INDICATED LOCATIONS

FILTER BUILDING
FOUNDATION DETAILS

B' EXPANDED TO COMPLETE SUPPORT

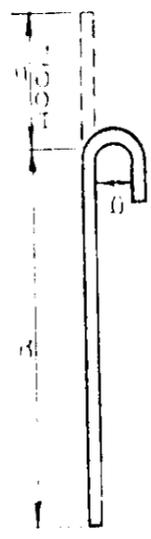


1/2" REINFORCING BARS

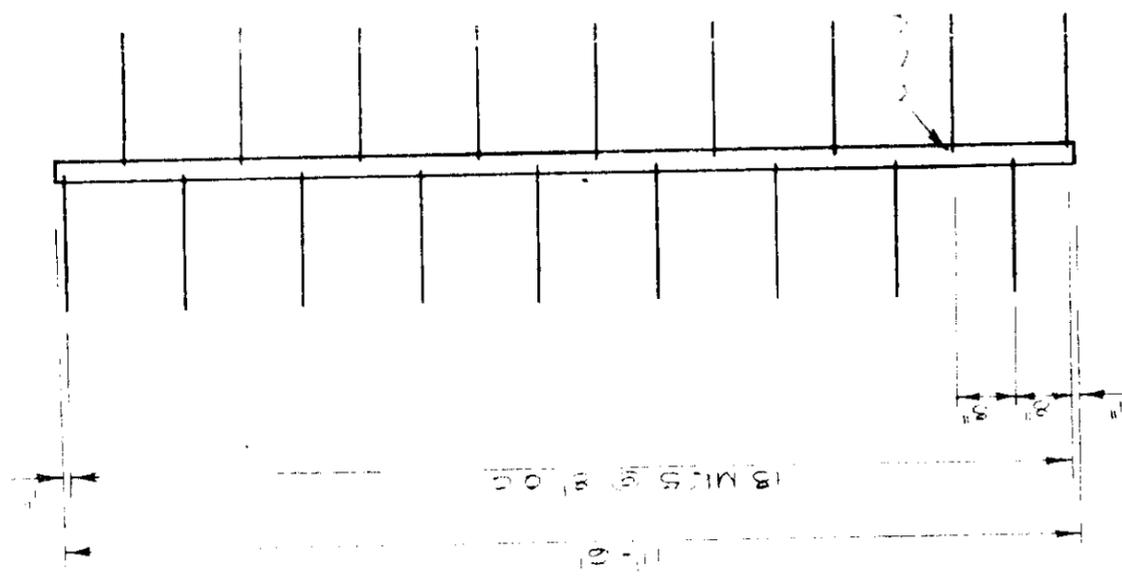
DETAIL E
PILE SUPPORT
SCALE: 1/2" = 1'-0"

REINFORCING SCHEDULE

NO.	DESCRIPTION	QTY	UNIT	REMARKS
1	1/2" REINFORCING BARS	11-7	25#	2 1/2'
2	3" REINFORCING BARS	1	11-7	25#
3	1/2" REINFORCING BARS	1	11-7	25#
4	3" REINFORCING BARS	1	11-7	25#
5	1/2" REINFORCING BARS	1	11-7	25#



SCALE: 1/2" = 1'-0"



SCALE: 1/2" = 1'-0"

DETAIL E
PILE SUPPORT
SCALE: 1/2" = 1'-0"

CHEVRON STANDARD LIMITED

**VIRDEN ROSELEA UNIT No. 2
INJECTION PLANT AND SYSTEM**

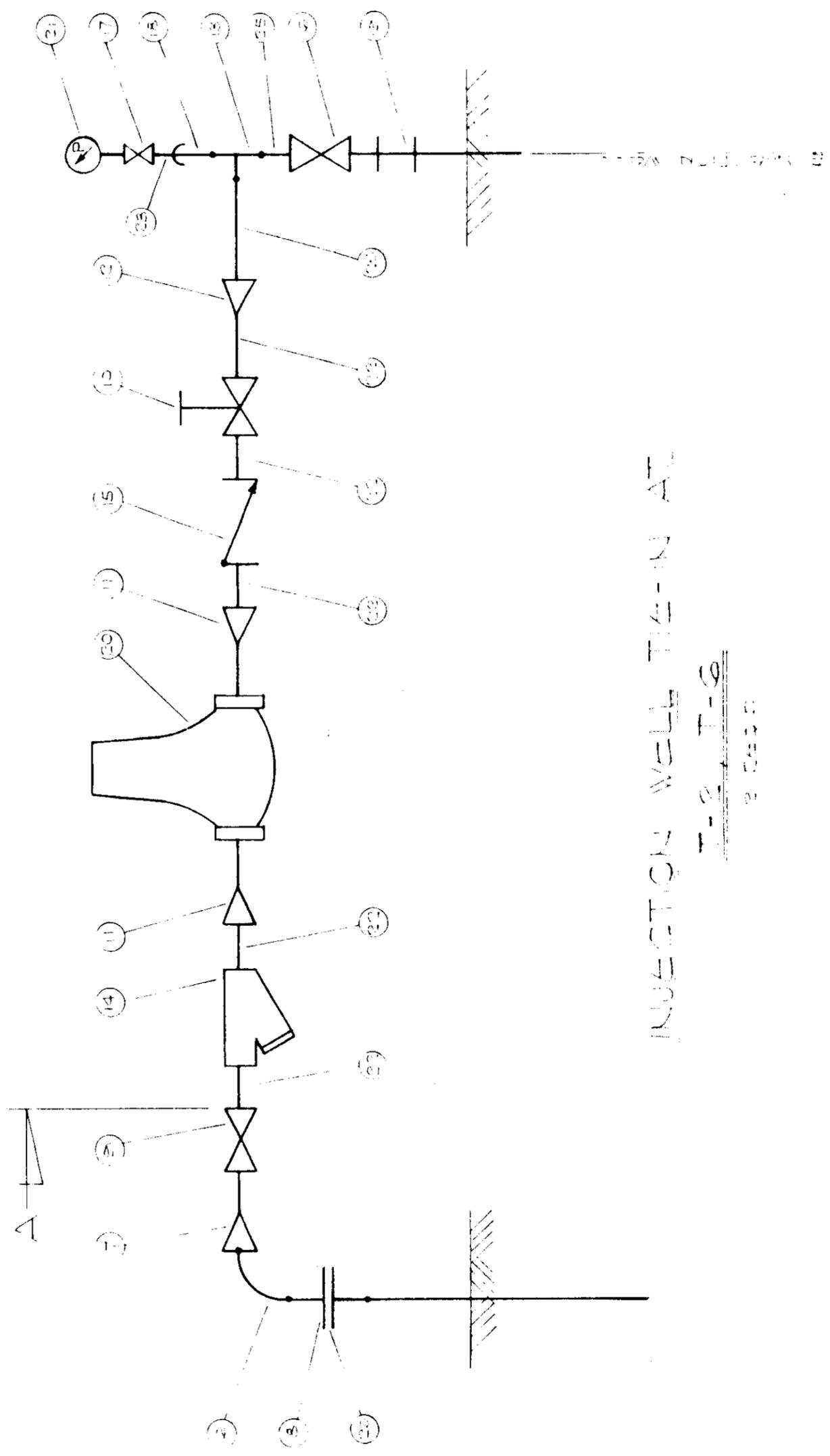
FOUNDATION & GRADE DETAILS

BY: CUF DATE: MAY 1955
CHKD: AS DIVISION SCALE: AS SHOWN

B-9666

REVISIONS

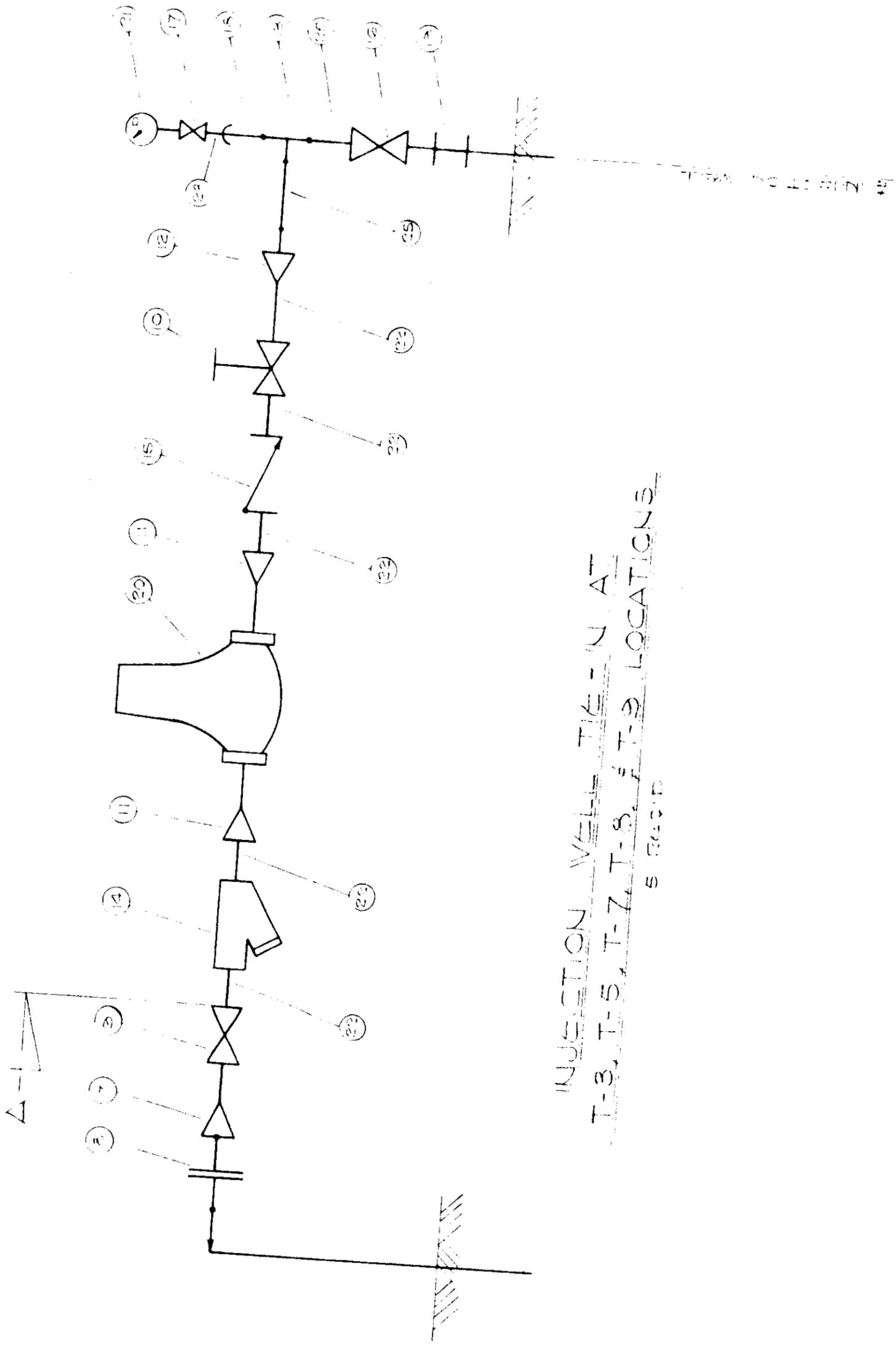
DATE	NO.	DESCRIPTION	AUTH BY



INJECTION WELL TIE-IN AT

T-2, T-6

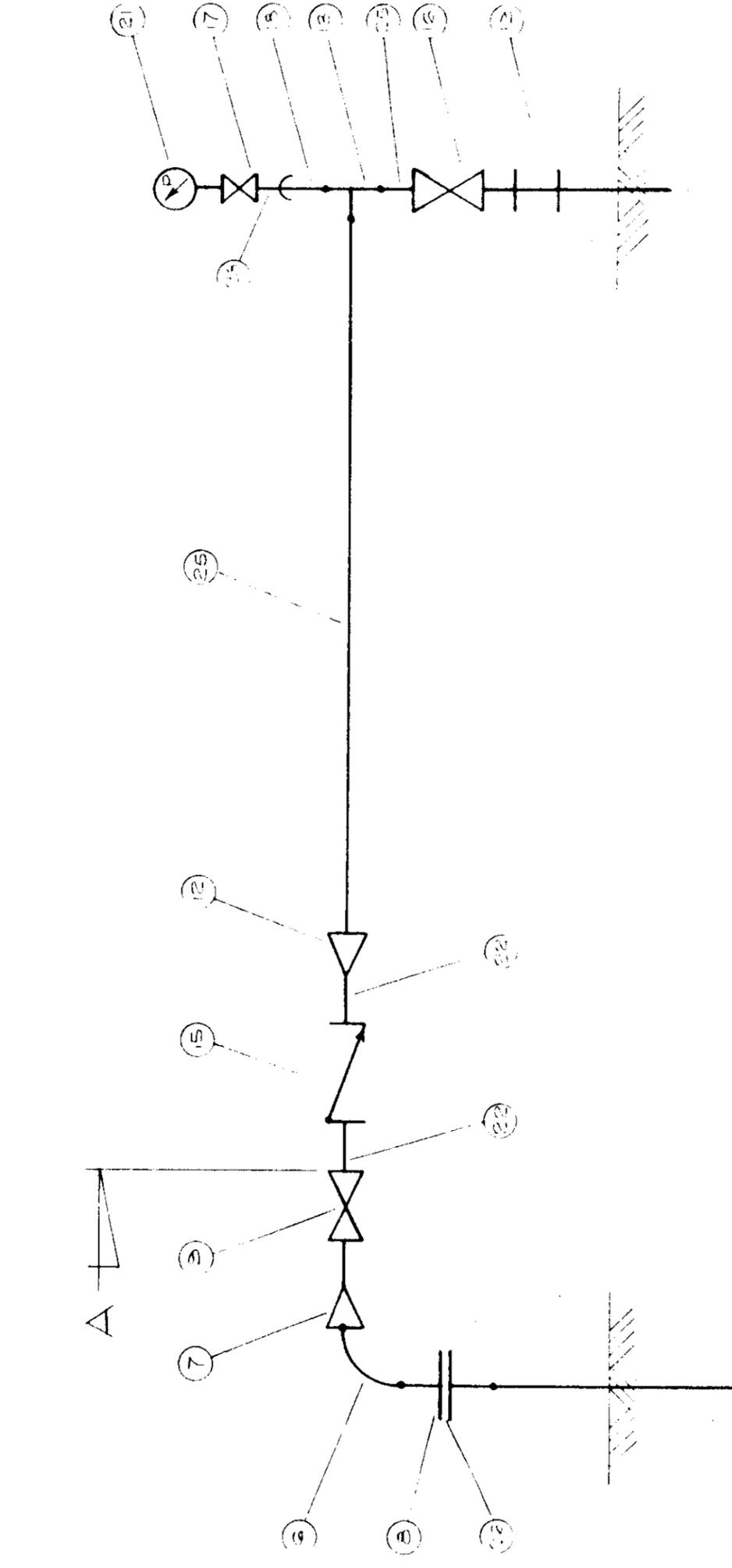
20220



INJECTION WELL TIE-IN AT
 T-3, T-5, T-7, T-8, & T-9 LOCATIONS
 5 FEET

No.	MARK	DESCRIPTION
1		1" STD W.P. 32' B.V.
2		2" STD W.P. 32' B.V.
3		3" STD W.P. 32' B.V.
4		3" A.S.A. 3000 R.F. A.D.S.
5		2" A.S.A. 3000 R.F. A.D.S.
* 6		2" STD W.P. 32' B.V.
* 7		2" x 1/2" 3000 W.P. 32' B.V.
* 8		2" A.S.A. 3000 R.F. A.D.S.

9		1" 3000# 3" 3" ST. STEEL
10		1" 3000# 3" 3" ST. STEEL
11		1" 3/4" 3000# 3" 3" ST. STEEL
12		2" x 1/2" 3000# 3" 3" ST. STEEL
13		2" 3000# 3" 3" ST. STEEL
14		1" 3000# MUTTER SWIVEL
15		3000# 3" 3" ST. STEEL
16		2" 404 3000 VALVE
17		2" 3000# 3" 3" ST. STEEL
18		2" 3000# FULL PLUG
19		2" 3000# 3" 3" ST. STEEL
20		3/4" MUTTER SWIVEL
21		2" 3000# 3" 3" ST. STEEL
22		2" x 1/2" 3000 W.P. 32' B.V.
23		1/2" x 1/2" 3000 W.P. 32' B.V.
24		2" x 1/2" 3000 W.P. 32' B.V.
25		2" x 1/2" 3000 W.P. 32' B.V.
26		2" x 1/2" 3000 W.P. 32' B.V.
27		2" x 1/2" 3000 W.P. 32' B.V.
28		2" x 1/2" 3000 W.P. 32' B.V.
29		2" x 1/2" 3000 W.P. 32' B.V.

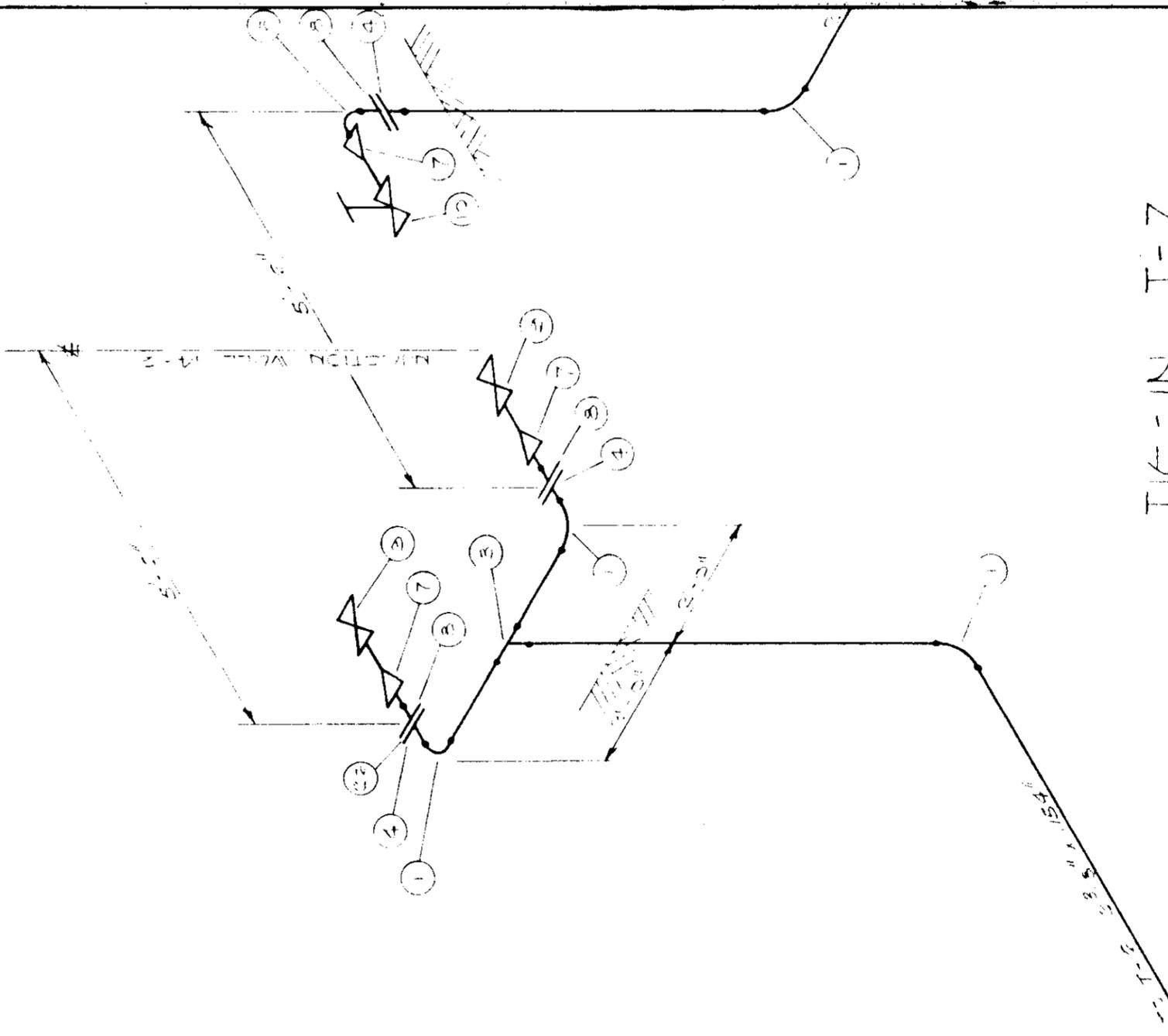


WELDED STEEL PIPE

5 0 0 0 0

30		2" 3000# 3" 3" ST. STEEL
31		2" 3000# 3" 3" ST. STEEL
32		2" 3000# 3" 3" ST. STEEL
33		2" 3000# 3" 3" ST. STEEL
34		2" 3000# 3" 3" ST. STEEL
35		2" 3000# 3" 3" ST. STEEL
36		2" 3000# 3" 3" ST. STEEL
37		2" 3000# 3" 3" ST. STEEL
38		2" 3000# 3" 3" ST. STEEL
39		2" 3000# 3" 3" ST. STEEL
40		2" 3000# 3" 3" ST. STEEL

TIE-IN T-7



TIE-IN T-6

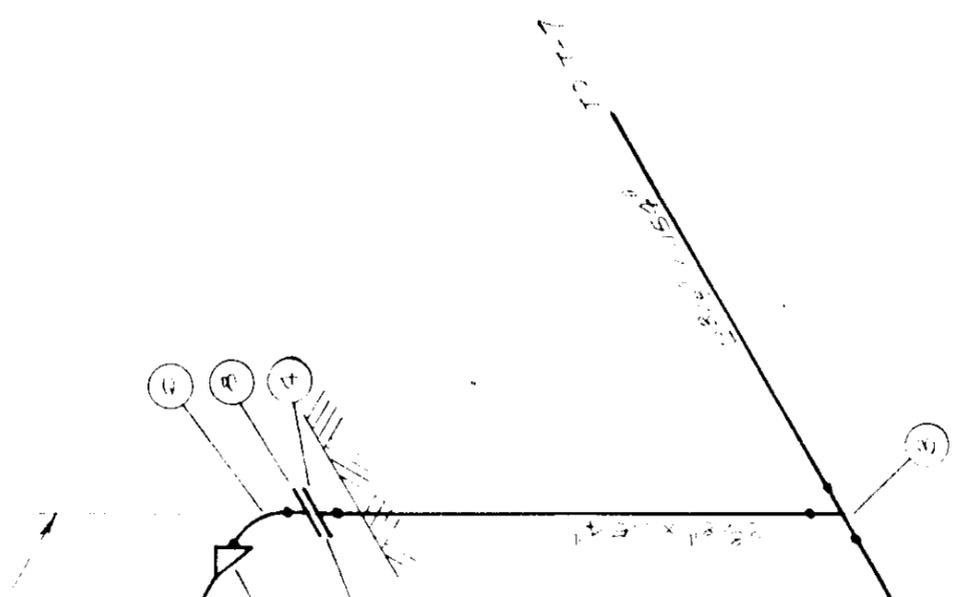
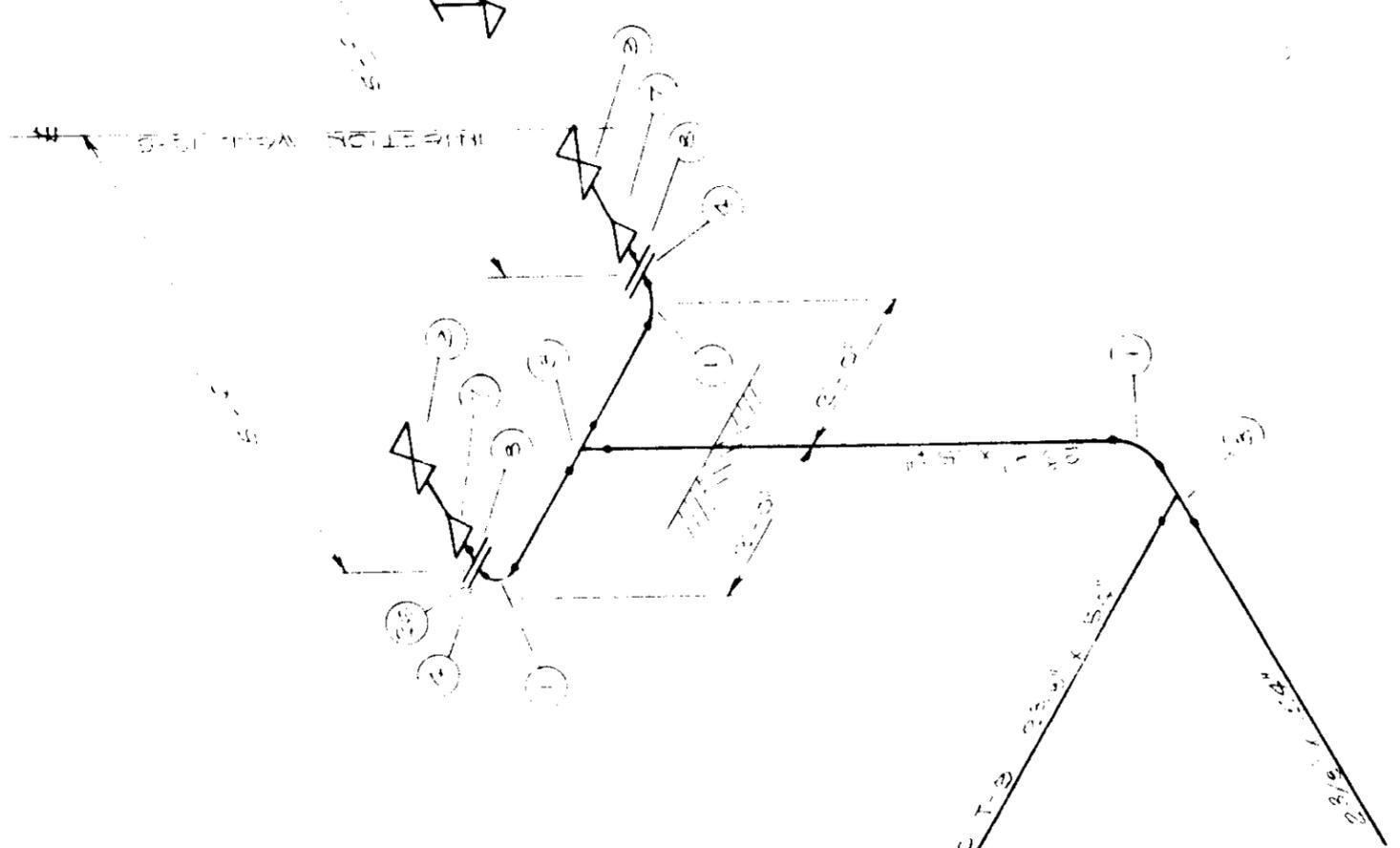
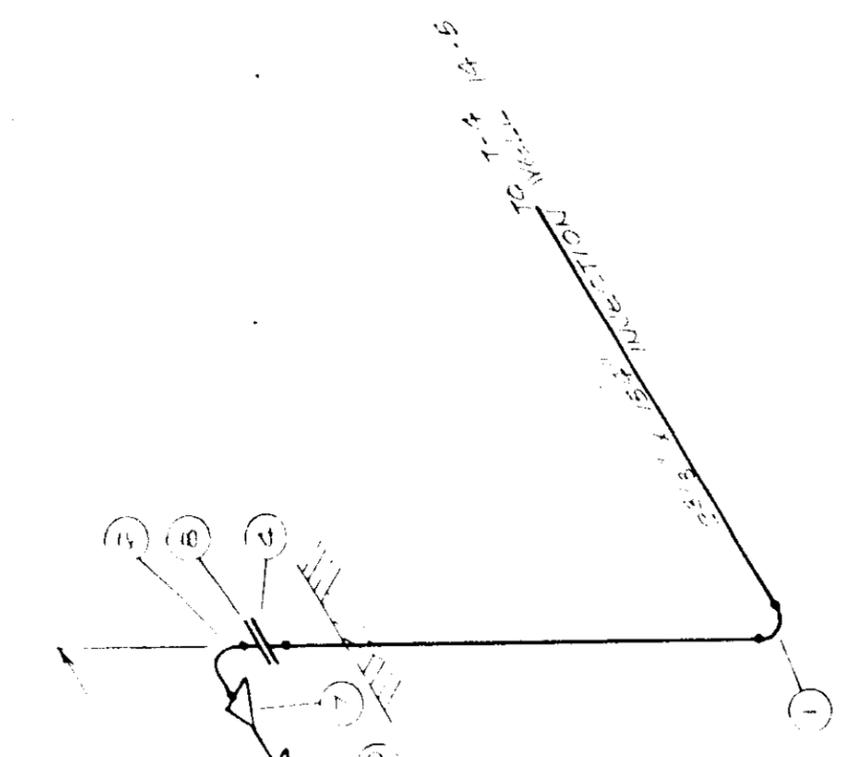
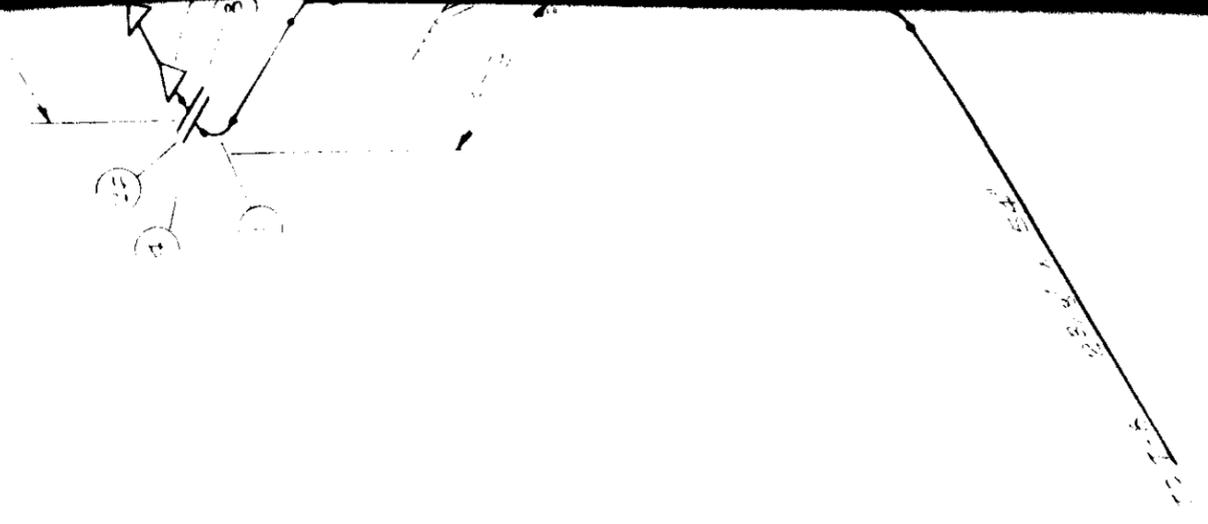


FIG - IN T-3

FIG - IN T-8



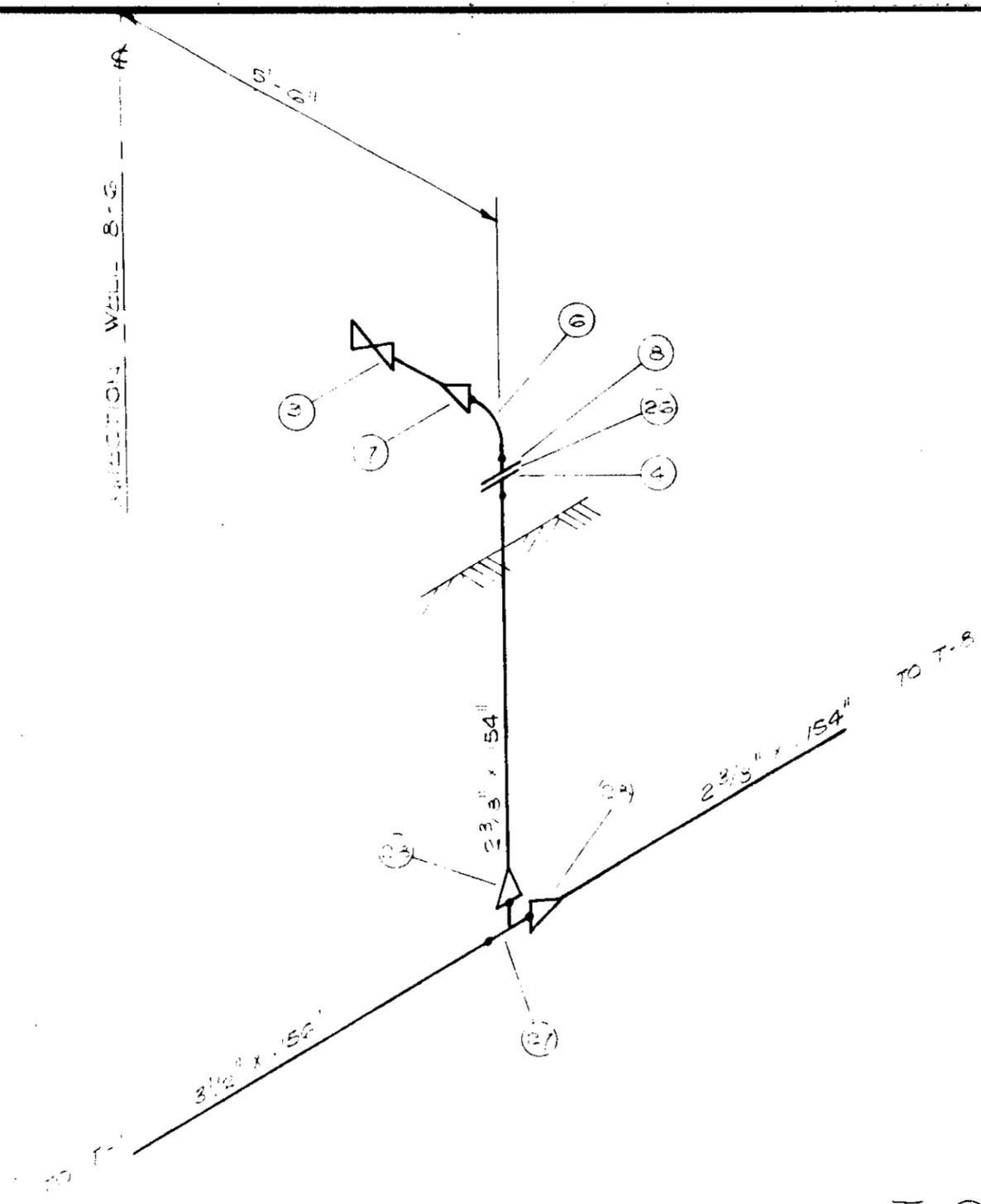
NOTES

1. ALL DATA WILL BE PLotted AND SURFACE ELEVATION POINTS WILL BE PLotted ON THE PLAN.
2. ALL DATA WILL BE PLotted ON THE PLAN WITH THE EXISTING DATA IN PENCIL.
3. ALL DATA WILL BE PLotted ON THE PLAN WITH THE EXISTING DATA IN PENCIL.
4. ALL DATA WILL BE PLotted ON THE PLAN WITH THE EXISTING DATA IN PENCIL.
5. ALL DATA WILL BE PLotted ON THE PLAN WITH THE EXISTING DATA IN PENCIL.

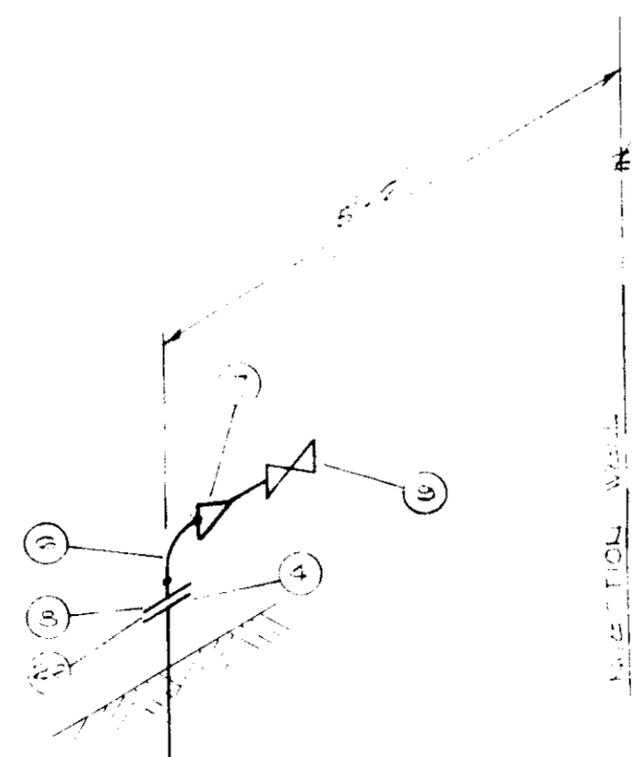
4-2

CHEVRON STANDARD LIMITED VIRDEN ROSELEA UNIT No. 2 INJECTION PLANT AND SYSTEM TIE-LINE TO T7, T8, & T9					
BY: _____ CHKD: _____	DATE: _____ SCALE: _____	SCALE: _____ DATE: _____	SCALE: _____ DATE: _____	SCALE: _____ DATE: _____	SCALE: _____ DATE: _____

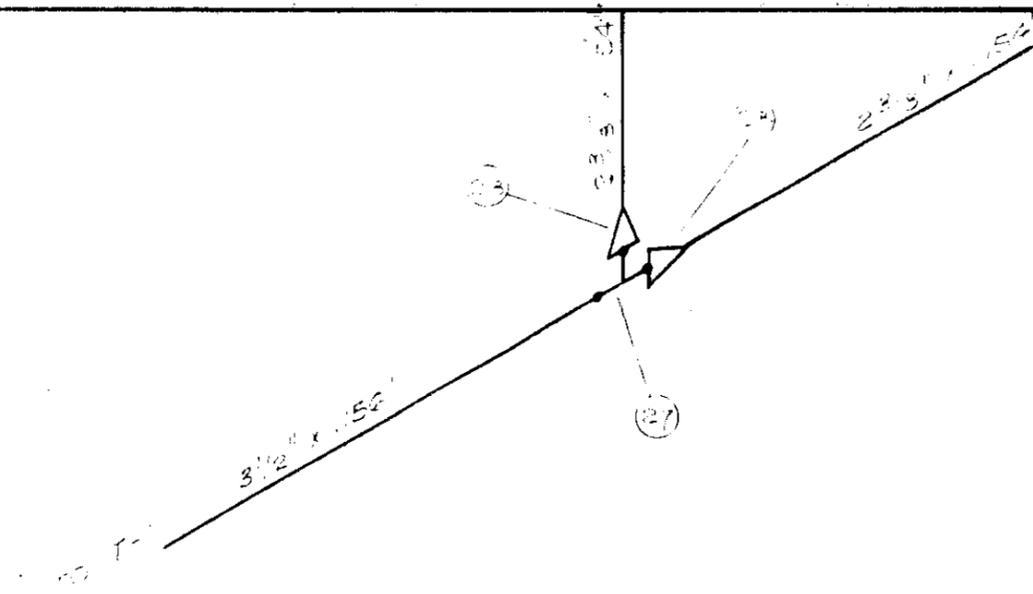
B-9629



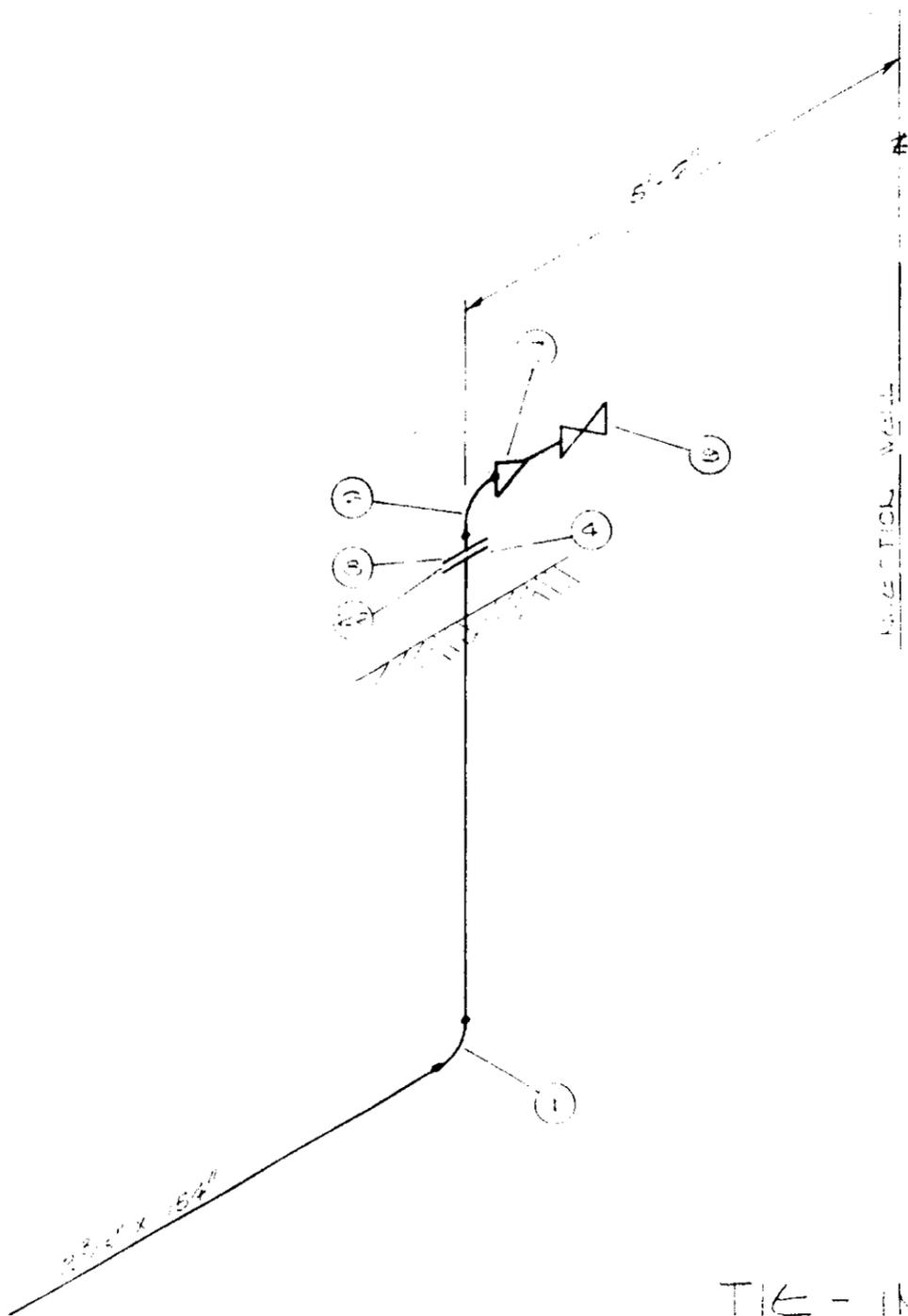
TIE-IN T-2



- SECTION WEL- 8-6
- 2-7
 - 4-8
 - 10-11
 - 20-21
 - 40-41

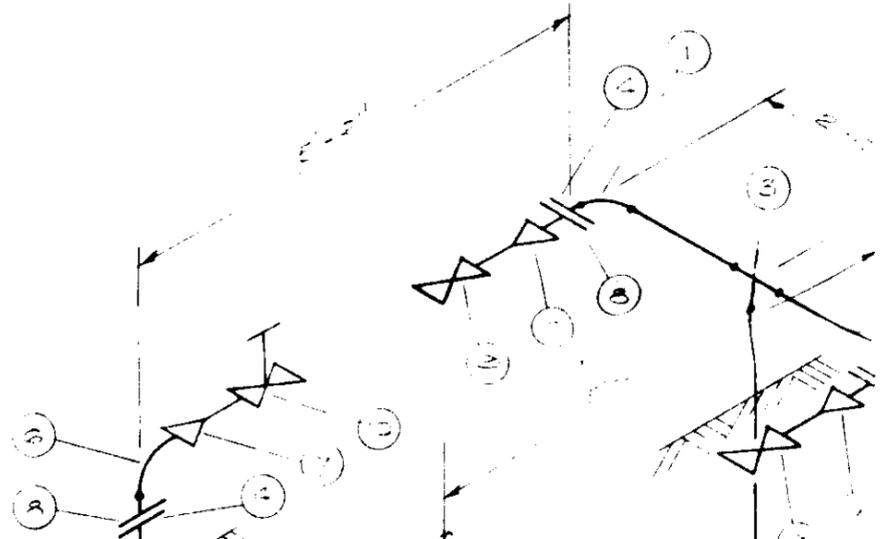
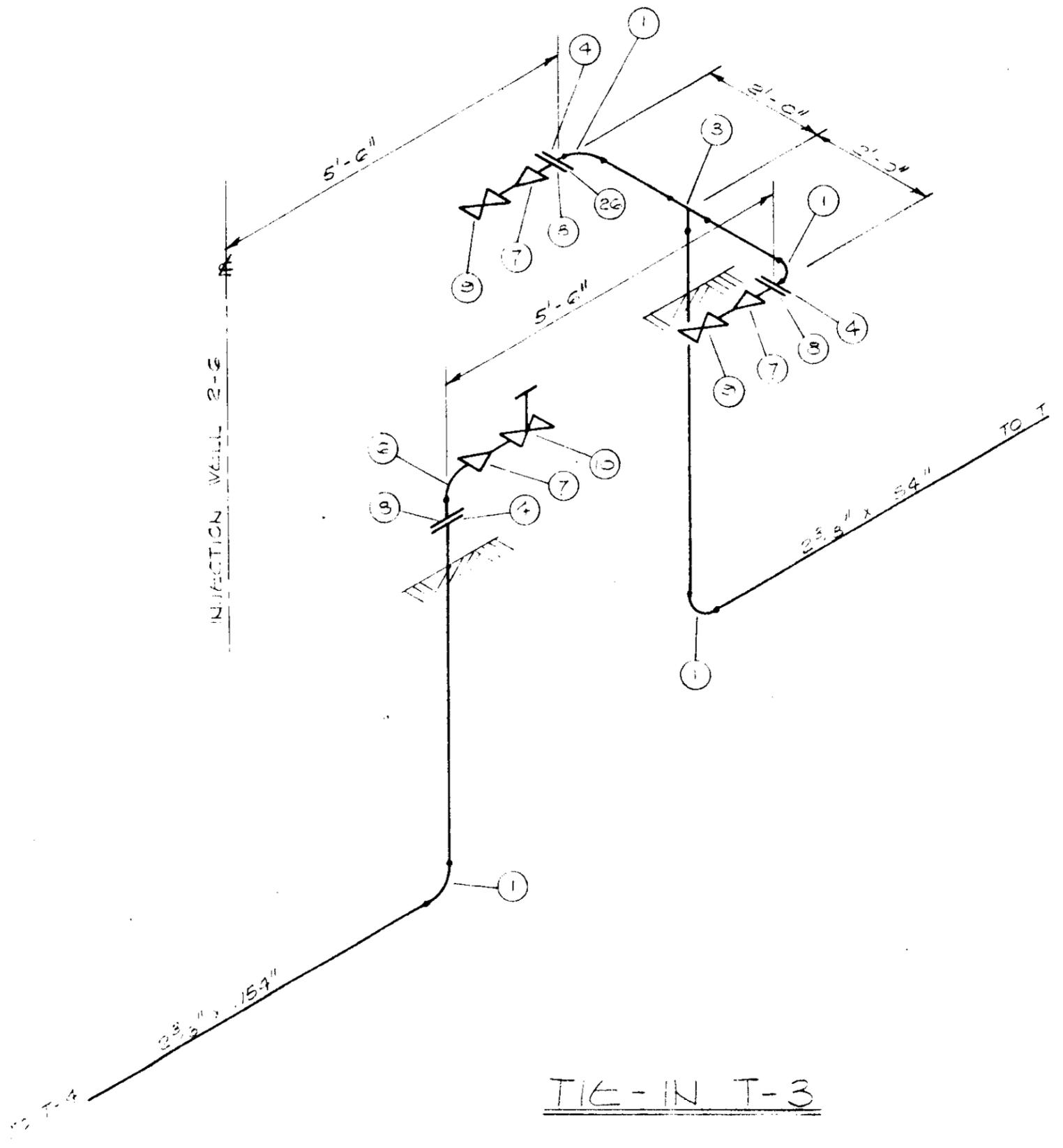


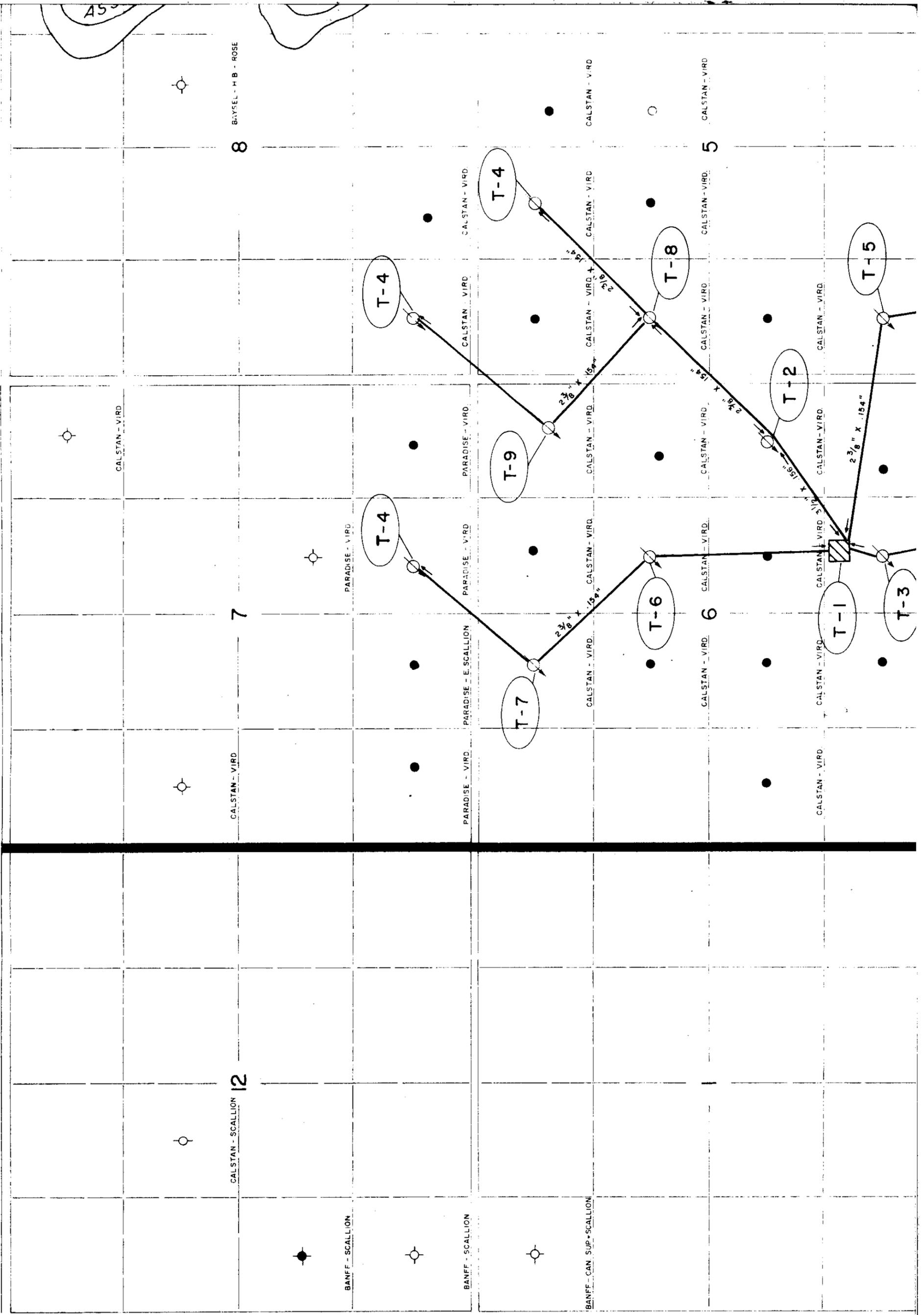
TIE-IN T-2



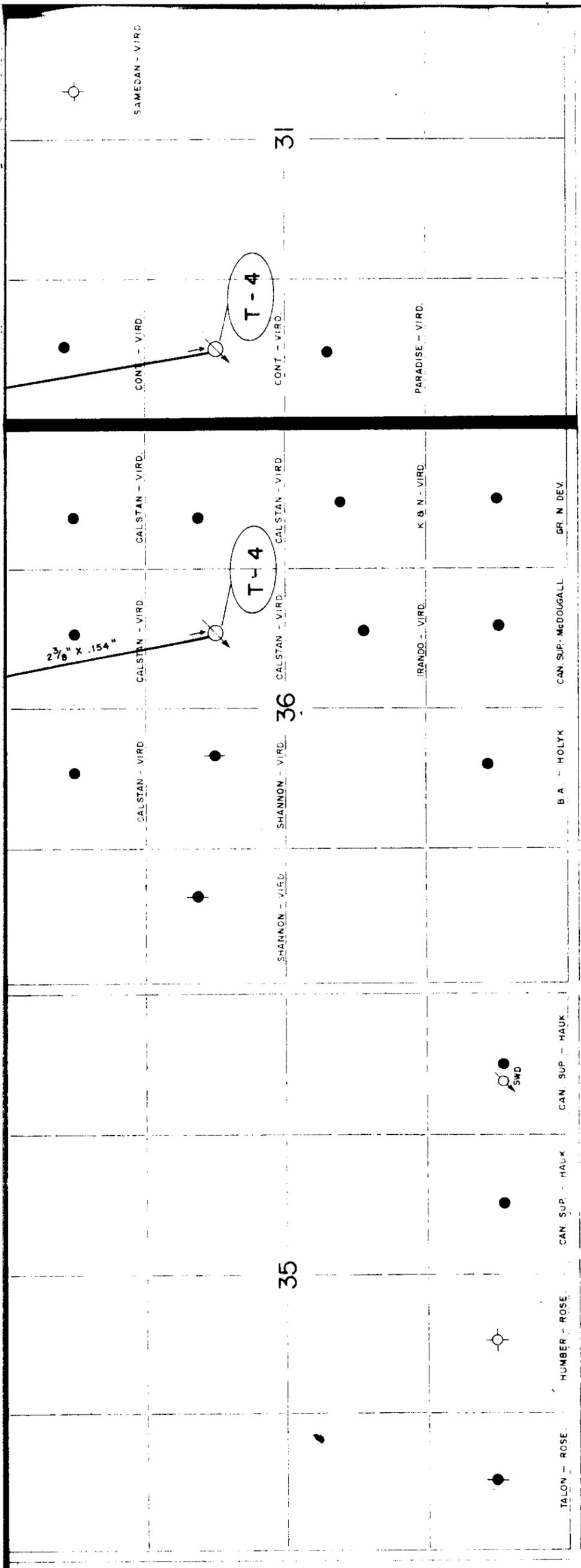
INVERTED WELDING
 2-7
 4-8
 10-11
 10-20
 14-8

TIE-IN T-4 (5 3/4 IN)





T.11



T. 10

35

36

31

R. 26 W.P.M.

R. 25 W.P.M.

INJECTION PLANT

NOTES

LINED STEEL PIPE - INJECTION SYSTEM
 PLANT
 TIE - IN LOCATION
 LINED STEEL - INJECTION SYSTEM

1. ALL INJECTION LINES CEMENT LINED
2. ASA 600 BLOCK VALVE & CHECK VALVE AT EACH INJECTION WELL

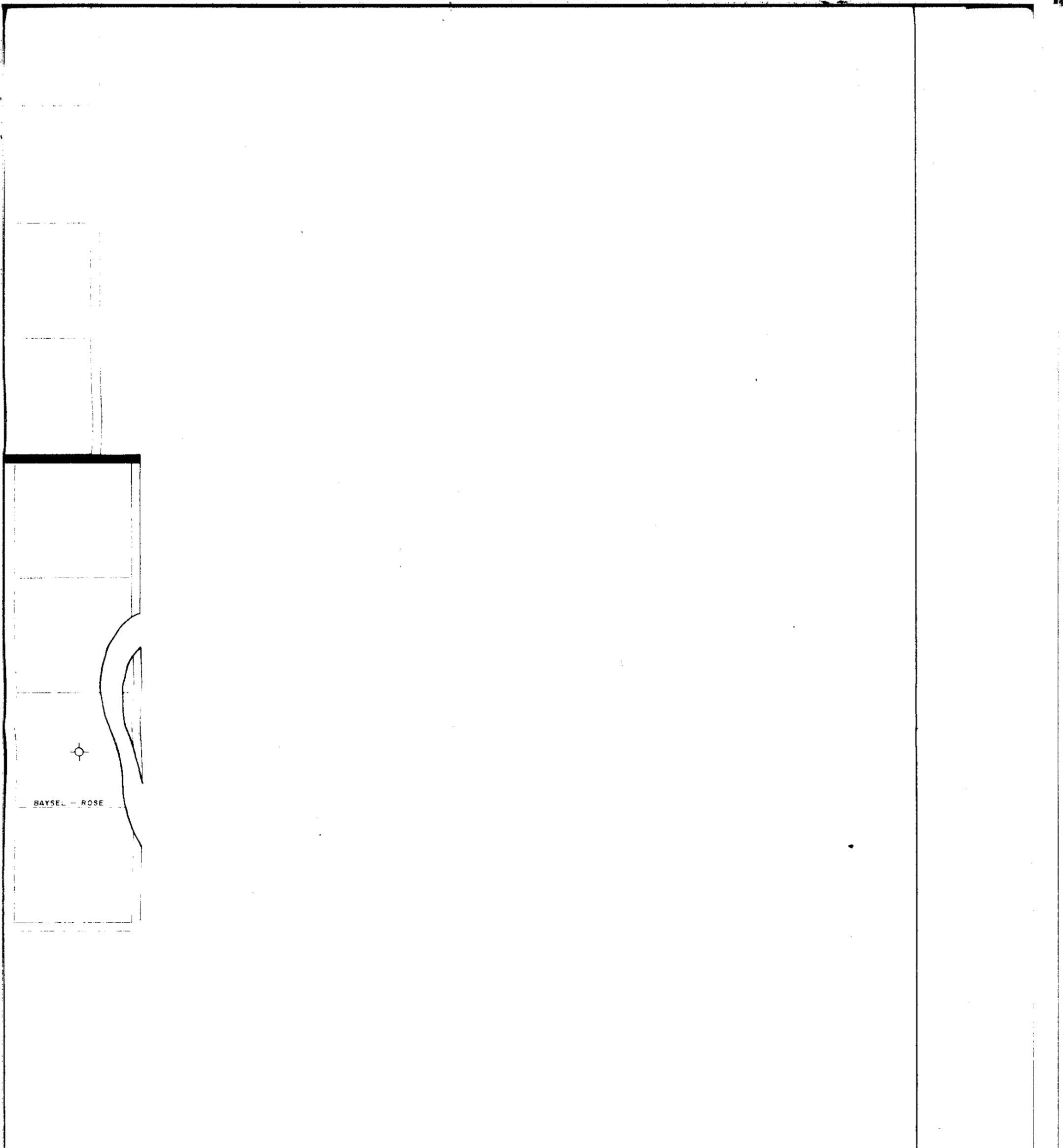
LOCATION: Lsd 2-6-11 - 25 W.P.M.
 PUMPING CAPACITY: 3000 B.W.P.D., 1200 psi

TIE - IN LOCATION

REVISIONS

DATE	NO.	DESCRIPTIC





NS	
	AUTH BY

CHEVRON STANDARD LIMITED
 VIRDEN ROSELEA UNIT No. 2
 INJECTION PLANT AND SYSTEM
 SKETCH OF INJECTION LINES
CODE MAP

BY: C. M. H.	DATE: AUG. 1965	B-9615 - 1
CHKD:	SCALE: 1" = 1000'	