STRATEGIC PETROLEUM RESERVE

ENGINEERING CHANGE PROPOSAL
SUMMARY SHEET
CLASS I CHANGE

ECP NUMBER	TITLE
SJ-M/O-4618	Sugarland Expansion 36-Inch Tie-In Line

BUDGET SOURCE

- [ ] SPR BLI _____
- [ ] CONTRACTOR BASELINE
- [ ] AUD
- [x] OTHER : Equilon (lease contractor)

AUTHORITY

- [x] PCCB
- [ ] ECC

SCHEDULE

- [ ] YES
  MILESTONE NUMBER _____
  CMCR NUMBER
- [ ] NO

TOTAL ESTIMATED COST OF CHANGE

	FY 01	FY 02
DESIGN		
CONSTRUCTION	$ 550,000	
TOTAL	$550,000	

PCCB/ECC SIGNATURES	DISPOSITION: CONCUR	DISPOSITION: NON CONCUR	DISPOSITION: DATE	COMMENTS CONDITIONS/LIMITATIONS
DOE SENIOR SITE OFFICIAL				
APM TECHNICAL ASSURANCE	✓			
APM SYSTEMS AND PROJECTS	X		6/1/2001	
APM MAINTENANCE AND OPERATIONS	✓		6/1/01	
DEPUTY PROJECT MANAGER				
DOE CMO				
PROJECT MANAGER				
DEPUTY ASSISTANT SECRETARY - SPR				

PCCB/ECC ACTION

- [x] FULL APPROVAL
- [ ] CONDITIONAL/LIMITED APPROVAL
- [ ] DISAPPROVAL

ECPFM(4)

STRATEGIC PETROLEUM RESERVE

WR #

ENGINEERING CHANGE PROPOSAL

ECP NUMBER	ECP TITLE	
SJ-M/O-4618	Sugarland Expansion 36-Inch Tie-in Line	PAGE 1 OF 1

CONTRACTOR CHANGE NO./REV.	INITIATED BY	DATE	SUBMITTED BY	DATE
	Kevin Forrest	4/16/01	Jeff Barab	5/26/2001
PRIORITY	ORG./CONTRACTOR	PHONE NO.	ORG./CONTRACTOR	PHONE NO.
☐ EMERGENCY	Equilon Pipeline	7132417296	Equilon Pipeline	7132410765
☒ URGENT	VALUE ENGINEERING	DRAWDOWN CRITICAL	ROM ESTIMATE	
☐ ROUTINE	☐ VEP (MANDATORY)	☐ YES	$ 550,000	
	☐ VECP (VOLUNTARY)	☐ NO	See below for Unfunded Liability provision	

DESCRIPTION:

PROBLEM / EXISTING CONFIGURATION **Equilon is installing two new tanks on property adjacent to Sugarland Terminal. Connecting the two facilities such they can be operated as a single facility will provide maximum flexibility and the maximum potential for future growth. The proposed solution will allow volumes to be moved between the facilities. Alternative plans considered by Equilon would add contraints to both incoming receipts and outgoing deliveries to both facilities as a result of increasing the utililzation of the incoming 20-inch Equilon pipeline.**

PROPOSED SOLUTION / ENHANCEMENT **Build a new 36" pipeline from the new facility to a new header at Sugarland Terminal which will be located near the incoming dock 1 & 2 lines. The header would tie-into the 36-inch Redstick Discharge 2 line with a 24-inch valve, and the Dock #2 Receipt header line with a 36-inch valve. Accommodations would be made in the new header for future connections to the other suction, discharge and dock lines in order to provide further flexibility, if warranted. See attached drawings for detail of the proposed solution.** PROVISIONS TO "BLIND" PIPING ON THE ST. JAMES TERMINAL PROPERTY WILL BE PROVIDED. [illegible] 6/1/01

It is agreed that the DOE will assume no more than $200,000 in unfunded liability based on an estimated project cost of $550,000 for facilities within the DOE's property. If the actual project cost is less than $550,000, the unfunded liability will be prorated accordingly. All facilities provided under this ECP will remain the property of the DOE at the termination of the Lease Agreement between the Department of Energy and Equilon.

REASON / JUSTIFICATION **This proposal will provide the capabilities to maximize volumes through Sugarland Terminal, Redstick Pipeline and Equilon's expansion tanks by increasing flexibility and minimizing constraints and reducing volumes that would otherwise need to be transferred via the Equilon 20-inch line. More specifically, the ability to transfer between the two facilities will help to maintain current volumes through Sugarland Terminal. Also, LOCAP volumes into the new tankage via Sugarland Terminal's existing LOCAP connection will bring additional volumes that will count toward the Lease volume/payment equations under the current Agreement. Volumes (not already included) and revenue generated through dock loading activities from Equilon's expansion facility will also count toward the Lease volume/payment equations .**

CI'S AFFECTED

TECHNCIAL ANALYSIS/RECOMMENDATION

IMPLEMENTATION METHOD
- ☐ SUBCONTRACT
- ☐ M&O LABOR (LOE)
- ☐ COMBINATION

ENGINEERING	DATE	DOE SSR	DATE	
Kevin Forrest Original signed by	4/17/01	[signature]	6/1/01	☒ CONCUR ☐ NONCONCUR

D-655

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STRATEGIC PETROLEUM RESERVE
ENGINEERING CHANGE PROPOSAL
CONFIGURATION CHANGE AFFECTED REPORT

WR #

TO BE COMPLETED BY TECHNICAL REVIEW PROCESS, ENGINEERING AND CONFIGURATION MANAGEMENT ORGANIZATION DEFINED PROCESS

ECP NO.	CONRACTOR CHANGE NO.	REV.	CHANGE CLASSIFICATION	
SJ-M/O-4618	SJ-M/O-4618	Ø	☒ CLASS I ☐ CLASS II	PAGE 2 OF

FUNCTIONS AFFECTED		DOCUMENTS AFFECTED	
YES/NO	ITEM	YES/NO	ITEM
?	LEVEL I ☒ LEVEL II ☐ CRITERIA		ELECTRICAL (cont'd)
NO	PERFORMANCE CRITERIA	NO	315 - CATHODIC PROTECTION
NO	RAM	NO	350 - STANDARDS
NO	INTERFACE CHARCTERISTICS		INSTRUMENTATION
NO	I/O POINTS	NO	401 - BLOCK DIAGRAM
NO	DOE LEVEL I, II, III SCHEDULES	NO	402 - LOOP DIAGRAMS
NO	GUARANTEES/DELIVERABLES	NO	403 - INSTRUMENT PLANS
NO	SAFETY/ENV/FP (CIRCLE ONE)	NO	404 - INSTRUMENT WIRING DIAGRAM
NO	SECURITY REQUIREMENTS	NO	409 - INSTRUMENT INDEX
NO	OPCS SOFTWARE	NO	450 - STANDARDS
NO	OPCS HARDWARE		MAPPING
NO	OPCS FIRMWARE	NO	501 - ALIGNMENT SHEETS
NO	SETPOINTS/RANGES	NO	509 - PIPELINE DRWGS (MAINLINE VALVES, DRIPS, SCRAPER, TRAPS, ETC.)
NO	DIP SWITCH SETTINGS/JUMPERS	NO	550 - STANDARDS
NO	MASTER CI LIST		ARCHITECTUAL
NO	WELLHEAD CONFIGURATION	NO	720 - ELEVATIONS AND FLOOR PLANS
NO	SPARES/ROVISIONING REQUIREMENTS	NO	750 - STANDARDS
NO	GOVERNMENT FURNISHED EQUIPMENT		DOCUMENTATION
NO	ENERGY USAGE	NO	900 - RESERVED
NO	OPERATIONS MODESL	NO	901 - TECHNICAL/PERFORMANCE/DESIGN CRITERIA
YES	OTHER	NO	910 - DESIGN DESCRIPTION/BASIS
	DOCUMENTS AFFECTED	NO	911 - PROCESS SET POINT DOCUMENTS
YES/NO	ITEMS	YES ✓	912 - EQUIPMENT LIST
	PIPING	YES ✓	913 - MOV LIST
YES ✓	101 - PROCESS FLOW DIAGRAMS	NO	915 - ELECTRICAL SAFETY
YES ✓	102 - MECHANICAL FLOW DIAGRAMS	NO	920 - I/O DOCUMENT
YES ✓	103 - PIPING AND INSTRUMENTATION DIAGRAMS (P&ID'S)	YES ✓	930 - OPERATIONS MANUALS
NO	104 - UTILITY FLOW DIAGRAMS	NO	930 - MAINTENANCE MANUALS
YES ✓	105 - GENERAL PIPING PLANS	NO	950 - STANDARD SPECIFICATIONS
NO	106 - AREA PLANS (MECHANICAL EQUIPMENT LOCATION)	NO	970 - TASK SPECIFICATIONS
NO	122 - WELL HEAD DRAWINGS	NO	990 - CONFIGURATION MANAGEMENT REPORTS/I.B.M.
YES ✓	130 - VALVE LIST		
YES ✓	135 - LINE LIST		
NO	140 - PSV LIST		
NO	150 - STANDARDS		
	CIVIL/STRUCTURAL		
YES ✓	201 - PLOT PLANS		
NO	202 - SITE WORK: GRADING (ROUGH & FINISH) DRAIN FENCING		
NO	210 - FOUNDATIONS: LOCATION PLANS		
NO	216 - MINES (WEEKS ISLAND ONLY)		
NO	250 - STANDARDS		
	ELECTRICAL		
NO	301 - AREA CLASSIFICATION		
NO	302 - ONE LINE DIAGRAMS *		
NO	303 - SCHEMATIC DIAGRAMS *		
~~NO~~ YES	304 - POWER PLAND AND DETAILS		
NO	305 - LIGHTING PLAND AND DETAILS		
NO	307 - SUBSTATION PLANS AND DETAILS		
~~NO~~ YES	308 - WIRING DIAGRAMS		
NO	310 - GROUNDING		
~~NO~~ YES	311 - CONDUIT & CABLE SCHEDULES (INCLUDING INST.)		
NO	313 - MCC/SWITHC GEAR EVALUATION & SCHEDULE		

COMENTS:

312 - Panel Board schedule

* Instrumentation is a ? @ this time
* we need to review when design
* package is complete.
* If instrumentation is not installed
* then we may need to include
* 302's and 303's

ENGINEERING	DATE	CONFIGURATION MANAGEMENT	DATE

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STRATEGIC PETROLEUM RESERVE

WR #

ENGINEERING CHANGE PROPOSAL

SOFTWARE, HARDWARE, FIRMWARE CHANGE

CONTRACTOR CHANGE NUMBER	REVISION NUMBER	ECP NUMBER	PAGE
		SJ-M/O-4618	3 OF

SOFTWARE CHANGE ANALYSIS	HARDWARE/SOFTWARE AFFECTED
	(NOTE: REDLINE CI BOM)

DISPOSITION OF PARTS

☐ REWORK SITE COMPONENTS ONLY ☐ REWORK ALL SITE COMPONENTS ☐ COMPONENTS NOT AFFECTED

☐ OTHER (DESCRIBE)

COMPONENT COMPATIBILITY (LIST COMPONENTS SEPERATELY IF COMPATIBILITIES ARE DIFFERENT)

☐ INTERCHANGEABLE ☐ DRAWDOWN COMPATIBLE ☐ NONCOMPATIBLE

OPCS SUPPORT ENGINEER DATE FUNCTIONAL MANAGER DATE

IMPLEMENTATION / TEST COMMENTS

WITNESSED BY	DATE

TEST APPROVED BY	DATE	CHANGE RELEASE AUTHORITY	DATE

D-658

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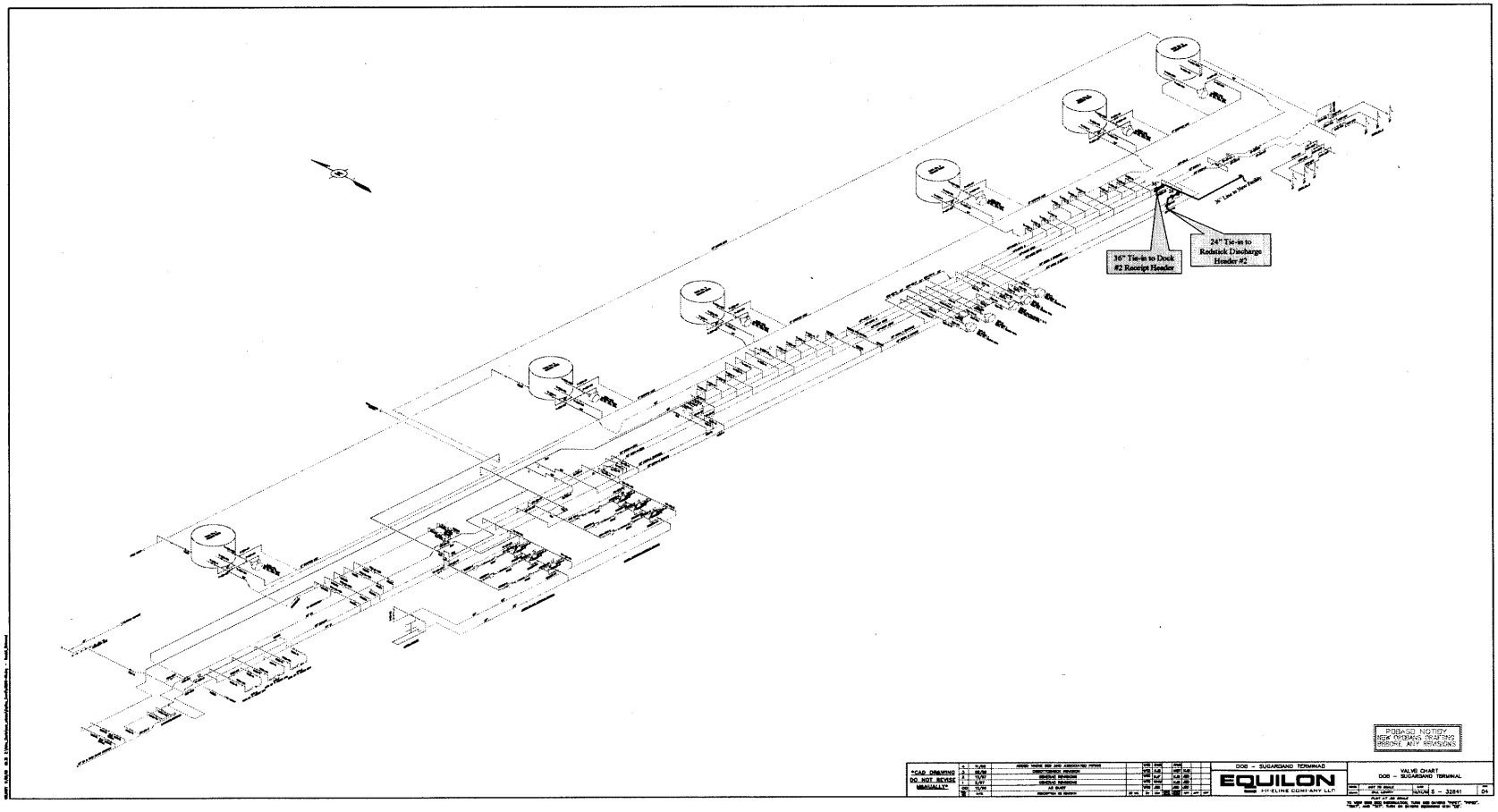
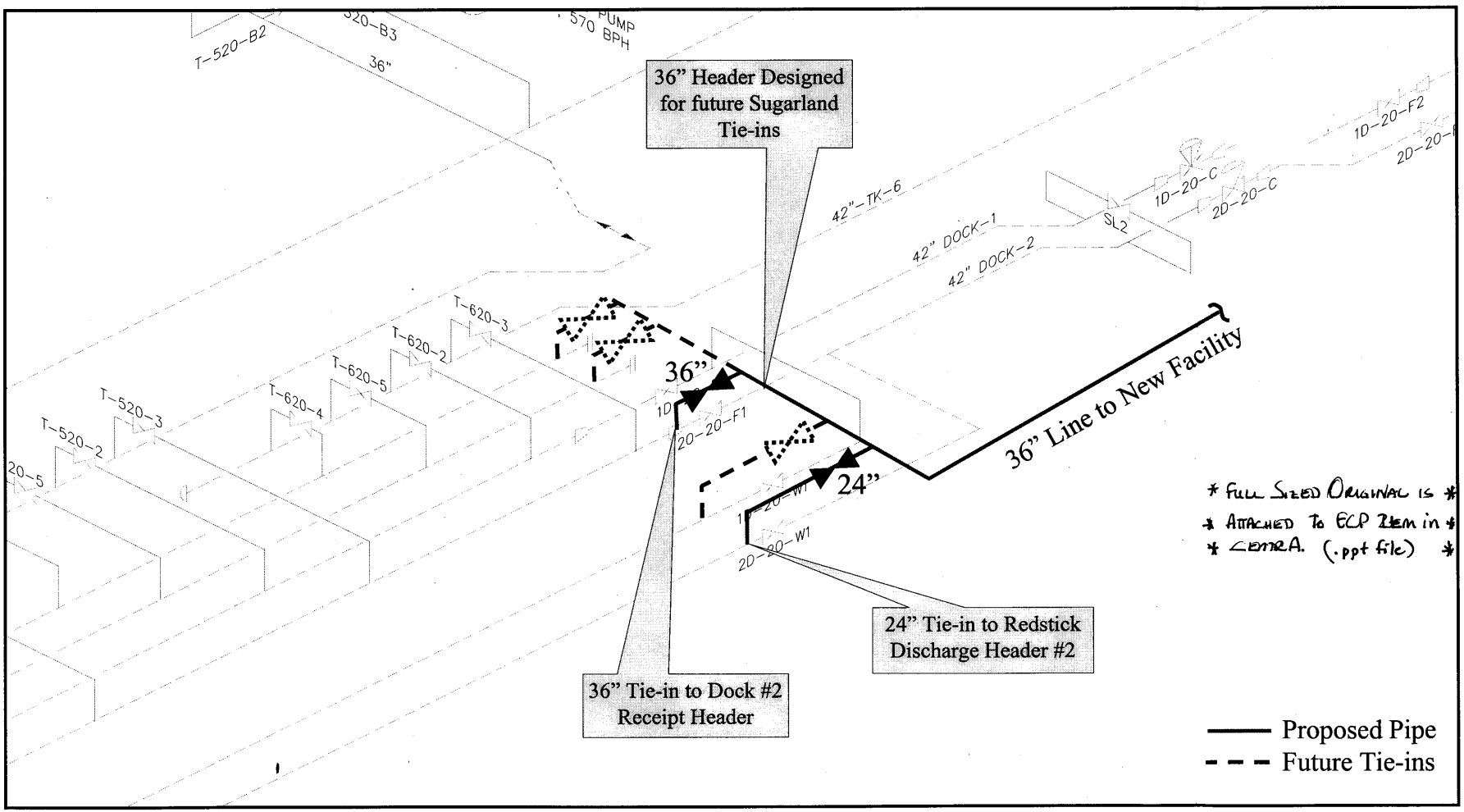
SUGARLAND TO EXPANSION FACILITY
36" TIE-LINE (Overview)



* Full Sized Original is Attached *
* to ECP Item in Centra (.ppt file) *

SUGARLAND TO EXPANSION FACILITY
36" TIE-LINE (Detailed)



April 12, 2004

To: Joseph DeCuir, PE DynMcDermont Pipeline Engineer

From: John Hayward, Shell Pipeline Field Engineer

Dear Joe,

Attached are sketches concerning the following Engineering Change Requests at the St. James (Sugarland) facility:

SJ – M/O – 4619 Firewater upgrades
The sketch shows location of the new 6" riser and valve and a detail on what was installed.

SJ – M/O – 4618 Sugarland Expansion (Acadian River Terminal)
The first sketch is a detail of the valve chart that shows where the new valves were installed. The following four sheets are 8-1/2 X 11 details of the pipe routing through the tank yard.

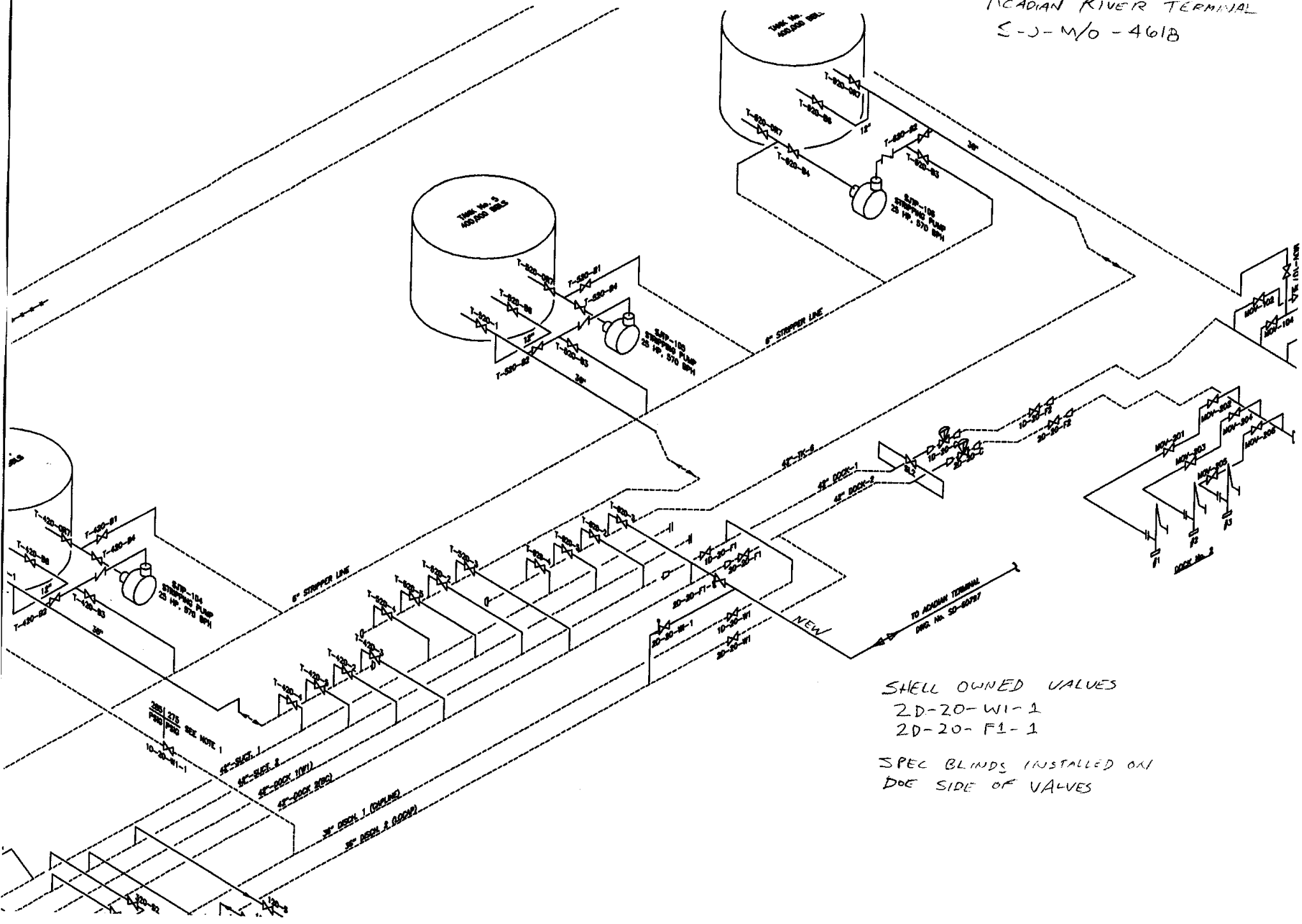
SJ – M/O – 4616 BC Gravitometer / Sampler Installation
The sketch is a detail from the valve chart that shows the location of the new sampler system. All vendor data on the new sampler had been provided previously.

As you can see from some of these sketches, I am not a talented draftsman. I hope the sketches meet the intent; to show location or information on what was installed. If this doe not meet your needs or you need more information, please give me a call at 618-432-5757. Thanks.

John Hayward

Date: 4/8/2004

SUGARLAND EXPANSION
ACADIAN RIVER TERMINAL
S-J-W/O-461B

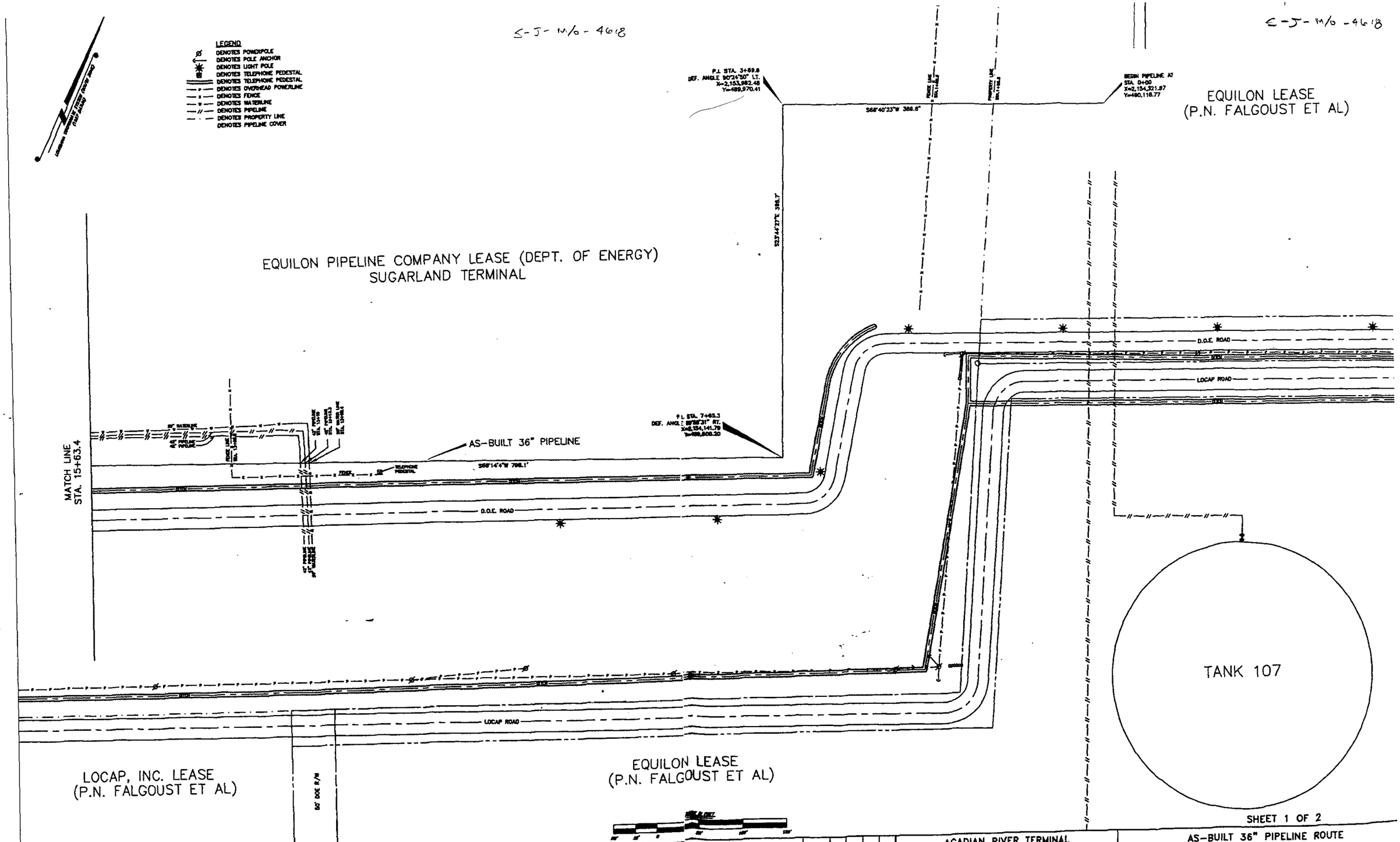


SHELL OWNED VALVES
2D-20-W1-1
2D-20-F1-1

SPEC BLINDS INSTALLED ON
DOE SIDE OF VALVES

Title: C:\Apps\Green Pasture Software\Temp\s32841-05.dwg

S-J-M/O-4618



SHEET 1 OF 2

REV NO	DATE	DESCRIPTION OF REVISION	ES NO.	BY	ELEC ENGR	MECH ENGR	APP	REV NO	DATE	DESCRIPTION OF REVISION	ES NO.	BY	ELEC ENGR	MECH ENGR	APP

ACADIAN RIVER TERMINAL

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AS-BUILT 36" PIPELINE ROUTE
ACADIAN RIVER TERMINAL
ST. JAMES PARISH, LOUISIANA

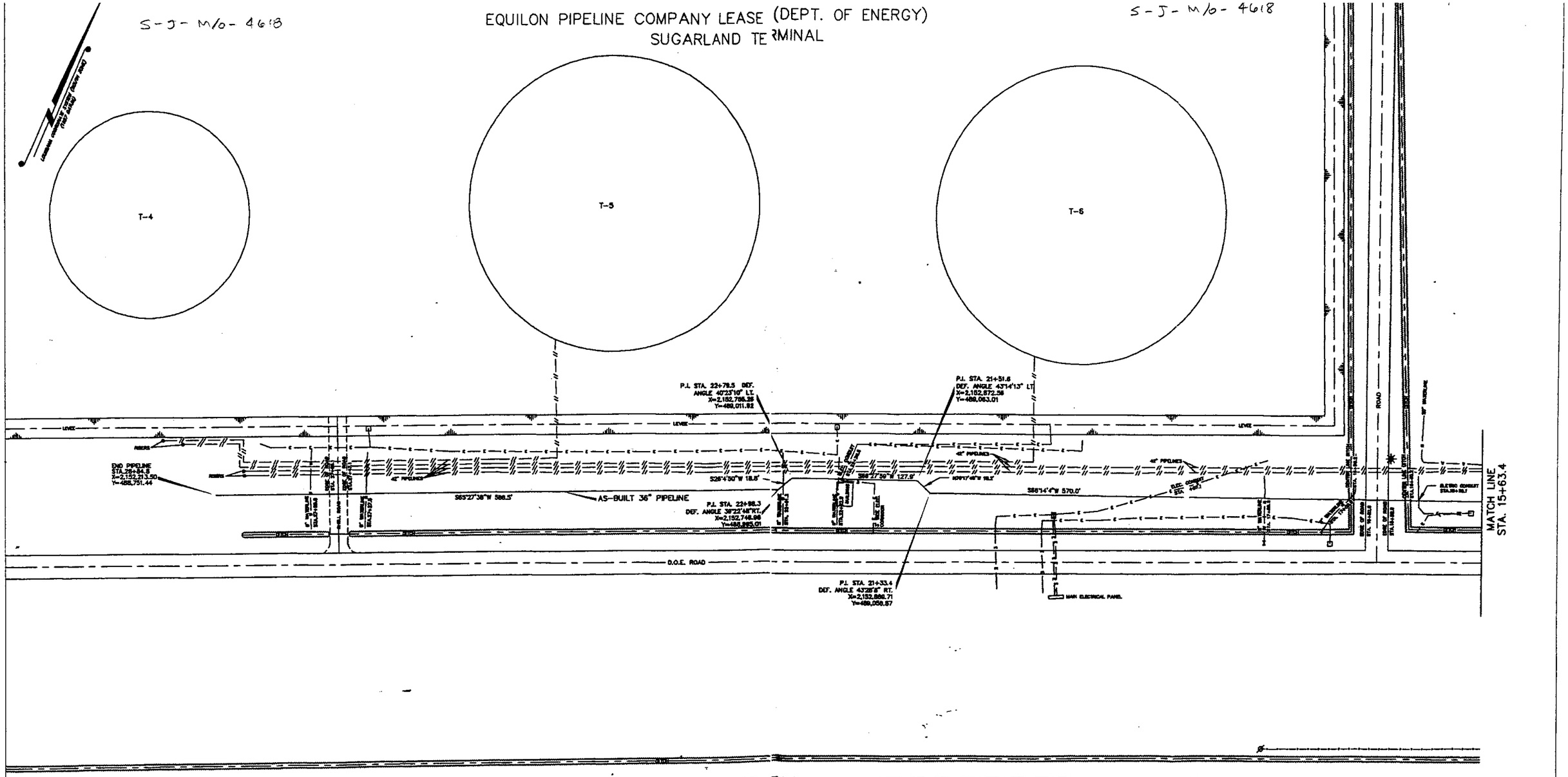
DATE 05/29/03
DRAWN TBD - JBP - S2001-736

SD- 62061

S-J-M/O-4618

EQUILON PIPELINE COMPANY LEASE (DEPT. OF ENERGY)
SUGARLAND TERMINAL

S-J-M/O-4618



LOCAP, INC. LEASE
(P.N. FALGOUS ET AL)

LEGEND
- DENOTES POWERPOLE
- DENOTES POLE ANCHOR
- DENOTES LIGHT POLE
- DENOTES ELECTRIC JUNCTION BOX
- DENOTES TELEPHONE PEDESTAL
- DENOTES OVERHEAD POWERLINE
- DENOTES UNDERGROUND ELEC. CONDUIT
- DENOTES FENCE
- DENOTES WATERLINE
- DENOTES PIPELINE
- DENOTES PROPERTY LINE
- DENOTES PIPELINE COVER

SHEET 2 OF 2

REV NO	DATE	DESCRIPTION OF REVISION	ES NO.	BY	ELEC ENGR	MECH ENGR	APP	REV NO	DATE	DESCRIPTION OF REVISION	ES NO.	BY	ELEC ENGR	MECH ENGR	APP

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AS-BUILT 36" PIPELINE ROUTE
ACADIAN RIVER TERMINAL
ST. JAMES PARISH, LOUISIANA

DATE 05/29/03
DRAWN TBD - JBP - S2001-736

SD - 62062 REV. 00