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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

In the Matter of the Application of Crimson
California Pipeline L.P. (PLC-26) for Authority to
Increase Rates for Its Crude Oil Pipeline Services.
(SOUTHERN CALIFORNIA)

Application No.

APPLICATION

GOODIN, MACBRIDE, SQUERI,
& DAY, LLP
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Attorneys for Crimson California Pipeline, L.P.

Dated: June 30, 2021

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OF THE STATE OF CALIFORNIA**

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APPLICATION

Pursuant to Sections 454 and 455.3 of the California Public Utilities Code¹ and in accordance with Rules 2.1, 2.2, 3.2, and 7 of the Commission’s Rules of Practice and Procedure, Crimson California Pipeline, L.P. (“Crimson” or “Applicant”) respectfully requests that the California Public Utilities Commission (“Commission”) authorize Crimson to increase the rates and charges for its intrastate crude oil transportation by ten percent for the transportation of crude oil on its Southern California (“SoCal”) system which consists of approximately 300 miles of active pipeline connecting various producing fields in the Los Angeles Basin to refineries in Los Angeles.

Given required and proper notice to its shippers, Crimson proposes to increase each of the individual rates on its SoCal by 10%, thereby increasing its current average transportation rate from \$0.6957/bbl. to \$0.7653/bbl., resulting in an estimated increase in annual revenue of approximately \$2.4 million. Crimson requests that the subject rate increase become effective August 1, 2021.

Concurrently with the filing of this application, Crimson has filed its

¹ All statutory references are to the California Public Utilities Code unless otherwise noted.

Advice Letter No. 46-O, similarly requesting that the currently effective rates on its SoCal system be increased by 10 percent effective August 1, 2021, subject to refund.

Section 455.3 authorizes an oil pipeline to increase its rates by up to 10 percent upon providing 30 days' notice and without the need for prior Commission approval, provided that the increase remains subject to retroactive Commission adjustment and refund with interest, as appropriate.

Crimson is filing this Application because it is unable with existing rates, even when increased by 10 percent as authorized by PU Code Section 455.3, to earn the reasonable return on its utility investment to which it is lawfully entitled.

A. Information Required By Commission Rules

1. Applicant Information Required by Rule 2.1(a)

Applicant Crimson is a California limited partnership. Its principal place of business is 3760 Kilroy Airport Way, Suite 300, Long Beach, California 90806; its telephone number is (562) 285-4100. Its general partner is Crimson Pipeline, LLC, which is wholly owned by Crimson Midstream Operating, LLC. Crimson Midstream Operating, LLC is wholly owned by Crimson Midstream Holdings, LLC. Crimson Midstream Holdings, LLC is privately held.²

2. Correspondence and Communication Information Required by Rule 2.1(b)

Correspondence and communications concerning this Application should be directed to the following Crimson representative:

² D. 10-11-019, issued November 22, 2010 in Application 10-07-024, authorized the transfer of control of CPMI which is controlled and managed by an individual, John Grier. D. 16-01-039 issued January 29, 2016 authorized the organization structure referenced in Section I.1 above, under which John Grier continues to exercise control of Crimson California Pipeline, L.P.

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3. **Organization and Qualification to Transact Business Documents
Required by Rule 2.2**

Per Rule 2.2 of the Commission's Rules of Practice and Procedure, Crimson incorporates by reference its Certificate of Limited Partnership filed as Exhibit A of Application 04-06-002 on June 1, 2004. Crimson's Certificate of Good Standing in California is included as Exhibit B hereto.

4. **Financial Statements Required by Rule 3.2**

Financial statements, including the most recently available balance sheet and income statement for Crimson, are attached as Exhibit C hereto.

B. **Statement of Currently Effective and Proposed Rates:**

Present and proposed rates for the Crimson's California jurisdictional pipelines are reflected in Exhibits D. Exhibit D sets forth the following regarding each transportation movement: (1) the currently effective rate; and (2) the rate reflecting the 10% rate increase that is the subject of this application.

C. **General Description of Crimson's Property and Equipment:**

Applicant Crimson has been formed as a limited partnership for the specific purpose of owning, operating, and managing smaller, marginal, or idle pipelines and providing pipeline transportation services to the public.

Crimson currently owns and operates six common carrier crude oil pipeline

systems in California, including various common carrier crude oil pipeline systems acquired pursuant to Commission authorization. In Decision 05-04-006 issued in A. 04-06-002, the Commission authorized Crimson's acquisition of: (i) the Thums pipeline system, which transports crude oil produced in the Long Beach Harbor area to various refineries and terminals in the Los Angeles area; (ii) the Ventura gathering pipeline system, which transports crude oil produced in the Fillmore and Ventura areas to the Crimson Ventura Tank Farm; and (iii) the Ventura 10-inch pipeline system, which transports crude oil from the Crimson Ventura Tank Farm and crude oil produced in the Inglewood area to various refineries in the Los Angeles area.

Decision 07-12-046, issued in A. 07-10-010, authorized Crimson's acquisition of the Line 600 pipeline system and the Line 700/East Crude pipeline system and its associated gathering pipelines, which generally parallel Crimson's pre-existing pipeline systems. The Line 600 pipeline system includes approximately 100 miles of pipe, three tanks with over 200,000 barrels of storage capacity and a crude oil truck unloading facility. The Line 700 system includes over 30 miles of pipe, one tank with approximately 5,000 barrels of storage capacity, and a crude oil truck unloading facility.

Decision 10-12-005, issued in A. 10-08-020, authorized Crimson's acquisition of certain common carrier crude oil pipelines owned and operated by Chevron Pipe Line Company ("Chevron"), identified as Chevron's Inglewood and Northam crude systems, including associated gathering systems, with points of origination in Los Angeles and Orange Counties and having destinations in Los Angeles County.

It is these six Crimson pipeline systems, referenced above,³ that are the subject of

³ The six Crimson jurisdictional pipeline systems are identified as follows: (1) Thums; (2) Wilmington (Ventura) 10"; (3) Wilmington (Ventura) gathering; (4) Line 600/700; (5) Brea West; and (6) Chevron Northam, Inglewood and #3-6" line.

the rate increase authorization sought by this Application.

D. Justification for Requested Rate Increase

Crimson proposes to increase its system-wide intrastate rates on its SoCal system from \$0.6324/bbl. to \$0.6957/bbl. The proposed rates are anticipated to increase annual trunk and gathering revenue by approximately 10%, or approximately \$2.4 million for the twelve-month period commencing August 1, 2021.

The subject rate increase is justified in light of a continuing decline in throughput volumes on Crimson's SoCal system. Exhibit D hereto, the Declaration of Michael J. Webb, demonstrates that even with the increase in revenues anticipated by this filing, Crimson will fail to realize a reasonable return on its utility investment to which it is entitled by law.

Given the continuing decline in Crimson's throughput, even with the increase in revenues anticipated by this filing, Crimson California will fail to realize a reasonable return on its utility investment, to which it is entitled by law.

E. Information Required for Rule 2.1(c) and Rule 7 Compliance

The subject application seeks authorization, pursuant to Sections 454 and 455.3 of the Public Utilities Code, for Crimson to increase the rates it charges for intrastate public utility pipeline services by 10 percent over the rates in effect as of the date of this filing.

Crimson has provided all shippers affected by the proposed rate increase with copies of both the subject application and Advice Letter 46-O.

1. Proposed Category: Crimson proposes that the application be treated as a "ratesetting" proceeding.

2. Need for Hearing: Hearings will be needed on this application only to

the extent a material issue of fact is raised by timely protest. Accordingly, Crimson does not know whether a hearing will be required. If no hearing is required, Crimson would request that an ex parte decision approving the rate increase request be issued by the Commission by December, 2021. If a hearing is required, Crimson proposes a schedule as set forth below.

3. **Issues Requiring Consideration:** The sole issue raised by this application is whether Crimson's proposal to increase rates by 10 % is just and reasonable.

4. **Proposed Schedule:** Crimson proposes the following schedule:

Application Filed	June 30, 2020
Notice in Daily Calendar	TBD by CPUC Docket Office
Protests Due	30 Days After Daily Calendar Notice
Prehearing Conference	August, 2021
Applicant's Opening Testimony	November, 2021
Intervenor Testimony	December, 2021
Applicant's Rebuttal Testimony	January, 2022
Hearings	February, 2022
Concurrent Opening Briefs	March, 2022
Concurrent Reply Briefs	April, 2022
ALJ Draft Decision	June, 2022
Commission Decision	July, 2022

F. **Exhibits**

As required by Commission Rules 15, 16, and 23, Crimson provides the following information and exhibits:

Exhibit A	Certificate of Good Standing
Exhibit B	Crimson Financial Statements
Exhibit C	Current and Proposed Rates
Exhibit D	Declaration in Support of Requested Rate Increase

WHEREFORE, Crimson requests:

1. That the Commission issue an opinion and order approving the requested increase in Crimson's crude oil pipeline tariff rates as quickly as is practicable; and
2. That the Commission grant such other and further relief as shall be just and proper; and

Respectfully submitted this 30th day of June, 2021 at San Francisco, California.

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Day, LLP
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By /s/ James D. Squeri
James D. Squeri

Attorneys for Crimson California
Pipeline L.P.

VERIFICATION OF COUNSEL

I, James D. Squeri, declare:

I am an attorney at law duly admitted and licensed to practice before all courts of this state and I have my professional office at Goodin, MacBride, Squeri & Day, LLC, 505 Sansome Street, Suite 900, San Francisco, California 94111.

I am an attorney for Applicant, Crimson California Pipeline, L.P., in the above-entitled matter.

No officer of Crimson California Pipeline L.P. is present in the county in which I have my office and for that reason I am making this verification on behalf of Crimson California Pipeline, L.P.

I have read the foregoing Application and know its contents thereof.

I am informed and believe that the matters stated therein are true and, on that ground, I allege that the matters stated therein are true.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed at San Francisco, California on this 30th day of June, 2021.

/s/ James D. Squeri
James D. Squeri

ATTACHMENT A

CERTIFICATE OF LIMITED PARTNERSHIP STATUS



Secretary of State Certificate of Status

I, ALEX PADILLA, Secretary of State of the State of California, hereby certify:

Entity Name: CRIMSON CALIFORNIA PIPELINE, L.P.
File Number: 200405400002
Registration Date: 02/20/2004
Entity Type: DOMESTIC LIMITED PARTNERSHIP
Jurisdiction: CALIFORNIA
Status: ACTIVE (GOOD STANDING)

As of January 5, 2021 (Certification Date), the entity is authorized to exercise all of its powers, rights and privileges in California.

This certificate relates to the status of the entity on the Secretary of State's records as of the Certification Date and does not reflect documents that are pending review or other events that may affect status.

No information is available from this office regarding the financial condition, status of licenses, if any, business activities or practices of the entity.



IN WITNESS WHEREOF, I execute this certificate and affix the Great Seal of the State of California this day of January 6, 2021.

A handwritten signature in cursive script, reading "Alex Padilla".

ALEX PADILLA
Secretary of State

Certificate Verification Number: YJGL5VY

To verify the issuance of this Certificate, use the Certificate Verification Number above with the Secretary of State Certification Verification Search available at webbizfile.sos.ca.gov/certification/index.

ATTACHMENT B

CRIMSON FINANCIAL STATEMENTS

Crimson Midstream - Crimson California Pipeline Company
Balance Sheet - Fiscal Year 2020

	FY2020
ASSETS	
Current Assets	
Cash	\$ (1,951,053)
Accounts Receivable - Trade	2,643,881
Accounts Receivable - Non-Trade	221,586
Other Current Assets	3,235,082
Total Current Assets	<u>4,149,496</u>
Fixed Assets	
Carrier Property	110,774,200
Less: Accumulated Depreciation	<u>(30,317,641)</u>
Total Net Carrier Property	80,456,559
Non-Carrier Property	5,395,492.88
Less: Accumulated Depreciation	<u>(1,559,804.69)</u>
Total Net Non-Carrier Prope	3,835,688
Construction in Progress	9,029,189
Investments	126,450,779
Other Assets	635,000
Total Fixed Assets	<u>220,407,215</u>
Total Assets	\$ 224,556,711
LIABILITIES	
Current Liabilities	
Accounts Payable	\$ 1,140
Other Current Liabilities	7,503,883
Total Long-Term Liabilities	<u>3,448,728</u>
Total Liabilities	<u>10,953,751</u>
EQUITY	
Contributions	268,822,040
Distributions	(78,553,647)
Ret. Earnings / Net Income (Loss)	<u>23,334,567</u>
Total Equity	<u>213,602,960</u>
Total Liabilities & Equity	\$ 224,556,711

Crimson Midstream - Crimson California Pipeline Company
Income Statement - Fiscal Year 2020

	FY2020
REVENUES	
Transportation	\$ 22,940,612
Pipeline Allowance	3,930,909
Other Revenue	269,914
Total Revenues	27,141,435
EXPENSES	
Operating Expenses	
Labor and Benefits	4,501,284
Materials and Supplies	106,101
Field Office	54,823
Asset Maintenance	3,838,466
Outside Services	1,866,813
Utilities and Power	1,066,050
Right of Way	2,920,610
Regulatory, Environmental, and Safety	949,359
Pipeline Release / Remediation	10,271
Insurance and Bonds	2,622,794
Property Taxes	776,830
Other Expenses	228,979
Total Operating Expenses	18,942,380
General & Administrative Expenses	
Labor and Benefits	1,848,266
Office Expenses	444,546
Professional Services	1,291,780
Insurance and Bonds	29,348
Taxes	43,372
Other Expenses	297,264
Total G&A	3,954,575
Total Expenses	22,896,955
Net Ordinary Income	\$ 4,244,480
OTHER INCOME (EXPENSE)	
Reimbursable Project Gains	608,862
Realized Gain / (Loss) on Crude Derivatives	(742,650)
Gain / (Loss) on Sale of Assets	3,000
Other Miscellaneous Income	193,769
Depreciation	(3,798,272)
Total Other Income (Expense)	(3,735,291)
NET INCOME	\$ 509,189

ATTACHMENT C

CURRENT AND PROPOSED RATES

Crimson California Pipeline L.P.

10% increase; rates in cents per barrel

Current Tariff	P/L - Route	Current Rate, cpb	Proposed Rate, cpb	Increase, %
Line 700 - Gathering				
CPUC 90.3	01 - REDU - Stewart	44.29	48.72	10.0%
CPUC 90.3	02 - Stearns Jct - Stewart	44.29	48.72	10.0%
CPUC 90.3	03 - W Naranjal - Stewart	44.29	48.72	10.0%
CPUC 90.3	04 - Sansinena - Stewart	44.29	48.72	10.0%
CPUC 90.3	05 - Trucks - Stewart	30.12	33.13	10.0%
CPUC 90.3	06 - Butler Road - Norwalk	44.29	48.72	10.0%
Line 700 - Trunk				
CPUC 91.5	01 - Stewart - Phillips 66	104.52	114.97	10.0%
CPUC 91.5	02 - Stewart - World Oil	107.51	118.27	10.0%
CPUC 91.5	03 - Norwalk - Phillips 66	90.35	99.38	10.0%
CPUC 91.5	04 - Norwalk - World Oil	95.85	105.44	10.0%
Line 600 - Gathering				
CPUC 92.4	01 - Mandalay - Ventura	44.29	48.72	10.0%
CPUC 92.4	02 - Salicoy - Santa Paul	44.29	48.72	10.0%
CPUC 92.4	03 - Sulphur Crest - Santa Paula	44.29	48.72	10.0%
CPUC 92.4	04 - South Mtn - Santa Paula	44.29	48.72	10.0%
CPUC 92.4	05 - Trucks - Santa Paula	30.12	33.13	10.0%
CPUC 92.4	07 - Torrey Gath - Torrey	44.29	48.72	10.0%
Line 600 - Trunk				
CPUC 93.4	01 - Ventura - PBF	118.69	130.56	10.0%
CPUC 93.4	02 - Ventura - Torrance	118.69	130.56	10.0%
CPUC 93.4	03 - Ventura - Sepulveda Vault	118.69	130.56	10.0%
CPUC 93.4	04 - Santa Paula - PBF	118.69	130.56	10.0%
CPUC 93.4	05 - Santa Paula - Torrance	118.69	130.56	10.0%
CPUC 93.4	06 - Santa Paula - Sepulveda Vault	118.69	130.56	10.0%
CPUC 93.4	07 - Torrey - PBF	118.69	130.56	10.0%
CPUC 93.4	08 - Torrey - Torrance	118.69	130.56	10.0%
CPUC 93.4	09 - Torrey - Sepulveda Vault	118.69	130.56	10.0%
West LA Gathering				
CPUC 94.3	01 - Las Cienegas - Venice Tie-in	44.29	48.72	10.0%
West LA Trunk				
CPUC 95.4	01 - Pico Tie-in (Tennessee Ave) - PBF	79.72	87.69	10.0%
CPUC 95.4	02 - Pico Tie-in (Tennessee Ave) - Torrance	79.72	87.69	10.0%
CPUC 95.4	03 - Pico Tie-in (Tennessee Ave) - Sepulveda Vault	79.72	87.69	10.0%
CPUC 95.4	04 - Venice Tie-in (Las Cienegas) - PBF	79.72	87.69	10.0%
CPUC 95.4	05 - Venice Tie-in (Las Cienegas) - Torrance	79.72	87.69	10.0%
CPUC 95.4	06 - Venice Tie-in (Las Cienegas) - Sepulveda Vault	79.72	87.69	10.0%
Mohawk to Ventura Tank Farm				
CPUC 96.3	01 - Mohawk to Ventura TF	28.73	29.41	10.0%
Sespe to Santa Paula / Ventura				
CPUC 97.3	01 - Sespe to Santa Paula	15.46	17.01	10.0%
CPUC 97.3	02 - Santa Paula to Ventura	24.80	27.28	10.0%
Ventura Tank Farm to LA Area Refineries				
CPUC 98.3	02 - Ventura - PBF	101.14	111.25	10.0%
CPUC 98.3	03 - Ventura - Phillips 66	101.14	111.25	10.0%
CPUC 98.3	04 - Ventura - Lomita Manifold Area	101.14	111.25	10.0%
CPUC 98.3	05 - Ventura - Marathon	112.74	124.01	10.0%
Inglewood Connection to LA Area Refineries				
CPUC 99.4	01 - Inglewood - Sepulveda Vault (0 to 360 mbl/month)	95.99	105.59	10.0%
CPUC 99.4	02 - Inglewood - PBF (0 to 360 mbl/month)	95.99	105.59	10.0%
CPUC 99.4	03 - Inglewood - Torrance Station (0 to 360 mbl/month)	95.99	105.59	10.0%
CPUC 99.4	04 - Inglewood - Sepulveda (over 360 mbl/month)	55.08	60.59	10.0%
CPUC 99.4	05 - Inglewood - PBF (over 360 mbl/month)	55.08	60.59	10.0%
CPUC 99.4	06 - Inglewood - Torrance Station (over 360 mbl/month)	55.08	60.59	10.0%
Lomita Manifold Area to Tesoro				
CPUC 100.3	01 - Lomita Manifold Area to Tesoro	13.69	15.06	10.0%
Ventura Gathering				
CPUC 101.3	01 - Sespe to Ventura	44.29	48.72	10.0%
CPUC 101.3	02 - San Miguelito to Ventura	31.24	34.37	10.0%
CPUC 101.3	03 - Ventura (Taylor/RBU, C&D) to Ventura	31.24	34.37	10.0%
Thums System				
CPUC 102.4	01 - Beta to Marathon, Phillips 66, Valero	48.15	52.97	10.0%
CPUC 102.4	03 - Thums to Marathon, Phillips 66, Valero	48.15	52.97	10.0%

CPUC 102.4	05 - WTU to Marathon, Phillips 66, Valero	48.15	52.97	10.0%
CPUC 102.4	07 - NWU to Phillips 66	48.15	52.97	10.0%
Inglewood (former Chevron) Pipeline				
CPUC 103.3	01 - Inglewood to Crimson	35.43	38.97	10.0%
Northam Trunk System				
CPUC 104.4	01 - Montebello to Paramount	143.34	157.67	10.0%
CPUC 104.4	02 - Seal Beach to Paramount	82.14	90.35	10.0%
CPUC 104.4	03 - Huntington Beach to Paramount	143.34	157.67	10.0%
Northam Gathering				
CPUC 105.3	01 - Montebello to Northam Trunk System	111.13	122.24	10.0%
CPUC 105.3	02 - Huntington Beach to Northam Trunk System	40.27	44.30	10.0%
Brea Canon to V-10				
CPUC 106.3	01 - Brea Canon - Phillips 66	57.98	63.78	10.0%
CPUC 106.3	02 - Brea Canon - Lomita Manifold Area	57.98	63.78	10.0%
CPUC 106.3	03 - Brea Canon - Marathon	57.98	63.78	10.0%

ATTACHMENT D

DECLARATION IN SUPPORT OF REQUESTED RATE INCREASE

Declaration of Michael J. Webb

I. Introduction and Statement of Qualification

1. My name is Michael J. Webb. I am Vice President with Regulatory Economics Group, LLC ("REG"), a consulting firm with offices in Reston, Virginia and San Francisco, California. My address is 11180 Sunrise Valley Drive, Reston, Virginia 20191. I hold a PhD and MA in Economics from George Mason University and a BA in Economics from American University. I have 22 years of experience in the oil pipeline industry. I have provided testimony before this Commission, the Federal Energy Regulatory Commission ("FERC"), the National Energy Board of Canada, the Kansas Corporation Commission, the Regulatory Commission of Alaska, the Wyoming Public Service Commission, the Virginia Corporation Commission, the Railroad Commission of Texas and the District Court in Harris County, Texas. In these forums, my testimony has addressed a variety of issues relating to oil pipeline regulation. I have attached my curriculum vitae as Exhibit No. MJW-1.
2. I have been asked by Crimson California Pipeline L.P. to calculate a Cost of Service and an Achieved Return figures for their Southern California Pipeline System ("SoCal"). The purpose of these calculations is to demonstrate to the California Public Utilities Commission ("CPUC" or "Commission") that its 10% rate increase filed on July 1, filed with my statement, are reasonable. An Achieved Return figure provides a way to calculate the return which a utility, such as SoCal, will earn at a given rate level. Similarly, a Cost of Service calculation demonstrates the imbalance between operating expenses and rate base elements. In the next section of my statement, I will present a summary of the elements used to calculate these figures. I will then present a Cost of Service (Exhibit No.

MJW-3) and three Achieved Return figures (Exhibit No. MJW-2). The first will present the Achieved Return resulting from the rates that were in place prior to any increase. The second will present the Achieved Return that would result from taking the full Cost of Service. Finally, I will present the Achieved Return figure that will result from the 10% increase to the current rates filed with this statement. In Section III of my statement, I will present a calculation of the cost-of-capital. Comparing this cost-of-capital to the Achieved Return resulting from SoCal's rate increases demonstrates that SoCal's rate increases fall within the zone of reasonableness.

3. I rely on data provided to me by SoCal for cost information that I incorporated into my calculation. Some minor adjustments were made over the course of preparing an acceptable Base Period that are explained in their related sections.

II. Cost of Service and Achieved Return Calculation

4. An Achieved Return calculation (Exhibit No. MJW-2) begins with the revenue generated by a given set of rates, subtracts costs of providing service, and divides the residual by the cost of the assets used to provide service. The figure, expressed as a percentage, is compared against various capital market metrics for comparable companies to determine if it is in the zone of reasonableness, presuming one is setting a cost-based rate.¹ To the extent the Achieved Return figure with current rates is significantly below the capital market metrics, it is appropriate to allow the utility to raise its rates to a level that will generate an Achieved Return aligned with these market metrics.

¹ Section III will discuss in detail the process of balancing investors' interests in ensuring the financial integrity of the enterprise with consumers' interest in not paying excessive rates first described in the seminal US Supreme Court Case *FPC v. Hope Natural Gas* 320 US, 591 (1944).

5. In preparing my Achieved Return calculations, I have relied upon a few basic principles. First, I began with actual data from the books and records of the company for the 2020 calendar year, which is the Base Period. Next, to the extent there was evidence that these figures will change with known and measurable accuracy in the Test Period (2021), I adjusted the Base Period figures to reflect this information. In addition, it is my understanding that this agency, like most regulatory agencies, bases such calculations on original cost. Consequently, as I discuss in subsection (b) below, I have obtained the original cost figures from SoCal. In the subsections below, I will discuss the various cost elements of the Achieved Return calculation. I will then discuss the calculation of revenue from which these costs should be subtracted and measured against as well as perform a Cost of Service calculation (Exhibit No. MJW-3).

a. Operating Expenses

6. I began my calculation by obtaining operating expenses for calendar year 2020 (Base Period) from SoCal, which are categorized in the Uniform System of Accounts for oil pipelines that I understand to be the convention relied on by the Commission. As shown on Line 20 of Exhibit No. MJW-3, Statement B, SoCal incurred approximately \$25 million of operating expenses in 2020. I worked with SoCal to identify nonrecurring expenses included in the Base Period and known and measurable changes to operating expense during 2021 (Test Period). These adjustments are shown in Exhibit No. MJW-3, Statement B and represent the changes that SoCal believes will occur with known and measurable accuracy during the Test Period. I have reviewed these adjustments, and they appear to meet the known and measurable standard and are appropriate for ratemaking. I recommend

that Test Period operating expenses of approximately \$29.7 million should be employed in calculating the Achieved Return.

7. I identified three normalizing adjustments necessary to remove non-recurring expenses from the Base Period expenses. Those normalizing adjustments include:
 - A total decrease of \$420,112 to accounts 300 and 500 Salaries and Wages,
 - A \$56,516 decrease to account 520 Outside Services, and
 - A \$10,271 decrease to account 390 Other Expenses.
8. These normalizing adjustments implied normalized Base Period operating expenses of approximately \$24.5 million.
9. Next, I identified seven test period adjustments to account for known and measurable changes. Those adjustments include:
 - A 5% increase to accounts 300 Salaries and Wages, 500 Salaries and Wages, 520 Outside Services, 550 Employee Benefits, and 580 Pipeline Taxes, related to S&W treatment costs,
 - A \$698,003 increase to account 350 Rentals related to increase in ROW lease costs,
 - A 25% increase to account 560 Insurance related to increased premiums,
 - A \$500,000 increase to account 520 Outside Services related to audit/tax, rate filing, and litigation costs,
 - A \$500,000 increase to account 590 Other Expenses to reflect post-pandemic travel costs,
 - A total increase of \$2.75 million related to Crimson corporate restructuring costs, and
 - A \$104,082 increase to account 540 Depreciation and Amortization related to property additions.

10. As the above illustrates, categories were both increased and decreased to achieve the most realistic and accurate projection of the Test Period. These test period adjustments combined with the normalizing adjustments yield Test Period operating expenses of \$29.7 million.

- b. Calculation of Original Cost Rate Base

11. Rate Base enters the Achieved Return calculation in two ways. First, the depreciation of Rate Base (i.e., recovering the economic cost of investing in assets over the expected life of the assets) is a cost that must be subtracted from revenue. In addition, dividing the residual revenue (after subtraction of operating expenses, depreciation, and other costs) by Rate Base generates the Achieved Return.
 12. It is my understanding, that this Commission employs the depreciated original cost approach ("DOC") for calculating Rate Base. The original cost of the assets calculated under the DOC approach is typically defined as the cost to the first entity to place an asset in public service. I began with the 2015 Rate Base approved by the Commission in the last SoCal rate case of approximately \$33.1 million and relied on additions and retirements contained in the company books and records (Exhibit MJW-3, Statement E).

- c. Depreciation

13. In addition to earning a return on its rate base, SoCal must recover the costs of the assets in Rate Base over the remaining service life during which these assets are expected to be in operation. A composite depreciation rate of 3.13% was used by SoCal when calculating these results (Exhibit MJW-3, Workpaper 1). This value is consistent with depreciation rates previously approved by this commission for SoCal in prior cases.

d. Income Taxes

14. Because SoCal is not itself a tax paying entity and consistent with precedent at this Commission, I have not included an Income Tax Allowance or any related items (e.g. ADIT) in the Cost of Service calculation.

e. Volume and Revenue

15. Having identified each of the cost elements comprising the Achieved Return calculation, it is necessary to calculate the revenue that SoCal will earn. SoCal has advised me that its revenue comes from two sources: collecting tariff rates filed with the Commission for transportation of oil, and selling any oil that it receives as part of the Product Loss Allowance ("PLA").² Therefore, estimating Test Period revenue will be a function of several variables including projected volumes, projected transportation rates, projected oil prices, and realized PLA sales price.
16. To estimate Test Period (2021) volume, I began with the actual long-haul volume that SoCal transported in 2020 of 35,707,397 (see Exhibit No. MJW-3, Workpaper 2, Line 39). There were no adjustments made to the base or test periods and the volumes remained the same.

f. Achieved Return

² It is my understanding that SoCal management has determined that it is appropriate to include PLA revenue in its achieved return calculation. Since this case involves a change to transportation rates, I believe this choice is conservative, in that it results in lower rates. In my opinion, a theoretical argument exists that transportation revenue should not be offset with PLA revenue.

17. Exhibit No. MJW-2, Line 15, Column [a] shows the Achieved Return if SoCal does not raise its rates at all. Under this scenario, SoCal would earn an Achieved Return on Equity of approximately negative 9.81%. In other words, SoCal would provide service at an economic loss.
18. Exhibit No. MJW-2, Line 15, Column [c] shows the achieved return SoCal would earn if it raised its current rates by 10% as calculated by their Cost of Service. Under this scenario, SoCal would earn an Achieved Return on Equity of approximately negative 0.63%. In other words, even after the 10% increase in rates the company will continue to provide service at a loss. It is my understanding that at this time, the company has made the commercial decision to seek a 10% rate increase, although that choice may change.

III. Cost of Capital

a. Cost-of-Capital Principles

19. *FPC vs. Hope Natural Gas* 320 US, 591 (1944) (hereinafter “*Hope*”) constitutes one of the seminal cases in setting just and reasonable cost-based rates. In relevant part, *Hope* teaches that a rate falls within the zone of reasonableness if it balances the interests of the investor and the consumer. *Hope* goes on to state that:

From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for capital costs of the business... By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and attract capital.

From this quote, it should be immediately apparent that SoCal’s current rates fall outside of the zone of reasonableness and result in an achieved return on equity of approximately

negative 9.81%. In other words, its rates do not even produce enough revenue to cover its operating expenses, never mind an achieved return sufficient to attract capital. In the Base Period of 2020, SoCal experienced a revenue deficiency of 4.5% (Exhibit No. MJW-3, Statement A, Line 10).

20. *Hope* also teaches that in assessing whether a given rate (or rate increase) achieves the appropriate balance, one must compare the return generated by these rates to the return generated by other firms of similar risk. Typically, this means comparing the achieved return on equity to the return of other publicly traded oil pipeline companies.
21. Calculating the appropriate cost-of-capital involves three key variables: the capital structure (i.e., the ratio of equity to long-term debt), the cost-of-debt, and the cost-of-equity. The combination of these three figures produces a weighted average cost-of-capital. Applying the weighted average cost-of-capital to the rate base produces the total return that the utility requires to provide service.

b. Capital Structure and Cost-of-Debt

22. In important ways, SoCal differs from other utilities regulated by this Commission. Specifically, SoCal does not issue long-term debt but relies on its owners as well as variable rate credit facilities for financing. Because these credit facilities differ in fundamental ways from long-term debt, it is inappropriate to incorporate them into the cost-of-capital calculation. Consequently, one could argue that the weighted average cost-of-capital (“WACC”)³ and the return on equity (“ROE”) should be equivalent. However, shippers may argue that such an approach generates an excessive return, and the Commission may

³ WACC = (COD * % Debt) + ROE * (1 - % Debt)

have concerns that such a precedent would provide an incentive for other utilities to reduce their reliance on debt, even if the incurrence of debt is economically efficient. Therefore, I have calculated SoCal's Achieved Return as if it had 40% long-term debt (i.e., % Debt = 40%). While several of the major publicly traded oil pipeline companies have higher debt percentages, in my opinion it is appropriate to use a lower debt percentage for SoCal to account for its smaller size and reliance on a small number of producers with declining production and the associated higher level of risk. Not only is this 60/40 equity structure economically sensible, it has been approved by this commission in other cases. In Decision 20-11-026, SoCal's parent company, Crimson California Pipeline, L.P., had their rate increases approved while employing the same models and structure.

23. In addition to a capital structure, it is also necessary to estimate a cost-of-debt ("COD"). The company informs that it believes its debt would be rated no better than single B level, a level that is significantly below the major publicly traded oil pipeline companies such as Delek Logistics Partners, L.P. ("Delek"). This fact is not particularly surprising as SoCal likely has more risk than Delek, including a smaller size and reliance on a small number of producers shipping oil from declining fields. The company provided data to me showing that the bond yields for smaller publicly traded oil pipeline companies with similar bond ratings have ranged between 2.74% and 17.11% in the 12-month period ending in January 2021. This range implies an average 12-month COD of 9.34% for publicly traded oil pipeline companies with similar debt ratings to that anticipated for SoCal. I would also note that in the past few months, unusual economic fluctuations from the COVID-19 Pandemic and government economic interventions have caused yields to rise dramatically for smaller oil pipelines, presumably as the market has become concerned about the

solvency of some midstream companies. Therefore, I believe my use of a debt cost of 6.50% for determining the imputed COD for SoCal is conservative (Exhibit No. MJW-3, Workpaper 1, Line 21).

c. Calculating the Return on Equity

24. The two-stage DCF model begins with a group of publicly traded oil pipeline companies known as the proxy group and determines the return investors would earn for each company in the group. Investor return consists of two elements: the yield that they expect to earn through dividends or distributions, and the growth in those dividends or distributions and the impact of that growth on the value of the security.
25. The first stage of the calculation relies on dividends (or distributions) and average unit price. Dividing expected dividends by unit price determines the dividend yield. For example, if the investor purchased a unit for \$10 and this share entitled the investor to \$1.00 of dividends per annum, the dividend yield would be 10%.
26. Analysts also forecast growth in the earnings and dividends and the impact of that growth on price of units. This growth represents the other element of the investors' expected return. If the investor expected the earnings and dividends to grow at 5% annually, the simple "growth" component of the expected equity rate of return would be 5%.

I apply the discounted cash flow formula:

$$k = (D_1/P_0) + g$$

Where:

k = estimated Equity Rate of Return

D₁ = expected dividend at year end

P_0 = company stock price, and

g = estimate of company's long-run future dividend and earnings growth

27. As shown at Exhibit No. MJW-3, Workpaper 3, for each company I calculated the yield by dividing the most recent distribution by the respective company's average unit price. Then, I made an adjustment by multiplying the yield by $(1 + 0.5g)$. This adjusted yield reflects average growth expected in the distribution during the period of the analysis.
28. Typically, the growth rate used in these proceedings consists of a two-stage weighted growth rate consisting of analysts' forecasts of earnings growth (given a 2/3 weight) and the projected growth in the gross domestic product (given a 1/3 weight). Consistent with this approach, I weighted by two-thirds Yahoo Finance earnings per share median growth consensus estimate. Next, I averaged the forecast gross domestic product growth rate and then applied a weight of one-third.
29. I averaged the forecasted long-term gross domestic product growth reported by the following three sources: the U.S. Energy Information Administration's Annual Energy Outlook, the IHS Global Insight's U.S Economy 30-Year Focus, and the Social Security Administration's OASDI Trustees Report.
30. In preparing my return on equity calculations, I relied on a proxy group consisting of the oil pipeline companies shown in the Table 1 below.

Table 1
Recommended Proxy Group
Magellan Midstream Partners, L.P.
MPLX LP
Enterprise Products Partners, L.P.
Shell Midstream
Phillips 66 Partners LP
Plains All American Pipeline, L.P.
Enbridge
Nustar Energy L.P.

31. This proxy group is similar to the proxy group approved by this Commission for Crimson California Pipeline in the recent decision issued on November 23, 2020, with adjustments for companies that are no longer publicly traded.⁴ Specifically, Buckeye and Sunoco are no longer publicly traded. To ensure a robust proxy group, I have added, MPLX, Shell Midstream and Phillips 66 Partners LP to this proxy group.
32. Calculating the Return on Equity using this proxy group generates a median nominal return on equity of approximately 14.64%, as shown in Exhibit No. MJW-3, Workpaper 3.
33. In addition to the DCF model employed above, I calculated an ROE under the CAPM approach using the same proxy group. The formula for the Capital Asset Pricing Model (“CAPM”) is:

$$ER_i = R_f + \beta_i(ER_m - R_f)$$

⁴ See FN. 92.

Where

ER_i = *expected return of investment*,

R_f = *risk-free rate*,

β_i = *beta of the investment*, and

ER_m = *expected market return*.

34. While DCF uses historical growth rates among the selected proxy companies to calculate a projected ROE, CAPM looks at the risk valuation of a company. The CAPM Cost of Equity for the proxy pipelines ranged from 10.1% to 17.1% and gave a median Size-Adjusted CAPM value of 12.54%. Given the present structure and situation that SoCal has, if anything this CAPM value understates potential risk. Combining this CAPM value with the previously calculated DCF value results in a ROE Nominal Composite Average of 13.59%.
35. Because SoCal and its parent company Crimson are significantly smaller and face significantly higher risk than these large diversified companies, I have added 100 basis points to develop a risk adjusted Return on Equity of 14.59%.

IV. Conclusion

36. As shown in the Exhibit No. MJW-2, Achieved Return, under its current rates SoCal will earn an Overall Return on Rate Base of -3.29% in the Test Period; its Achieved Return on Equity will be -9.81%. In other words, its expenses and debt costs will exceed its revenue. Raising rates by 10% will allow SoCal to earn an overall Achieved Return on Rate Base of 2.22% and an Achieved Rate of Return on Equity of -0.63%, both of which are well below a reasonable return on equity, and indeed well below the return on equity approved by the Commission in the recent case involving Crimson. I would further note that my

analysis shows that SoCal could justify a rate increase of 26.6%, a fact that further supports the reasonableness of only raising rates by 10%.

The foregoing declaration is submitted under penalty of perjury in accordance with the laws of the State of California.

Dated: June 30, 2021

/s/ Michael J. Webb

Michael J. Webb

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Crimson SOCAL Pipeline Company
2021 COS Rate Filing
Exhibits to MJW Declaration

Index of Exhibits and Schedules

Exhibit MJW-1 Curriculum Vitae of Dr. Michael J Webb

Exhibit MJW-2 Achieved Return

Exhibit MJW-3 Cost of Service and Cost-Based Rates

<u>Exhibit MJW-3 Schedules and Workpapers</u>		<u>Tab</u>
Proposed Rates	Proposed Rates per Route	Proposed Rates
Statement A	Total Cost of Service	A
Statement B	Operating Expenses	B
Statement C	Overall Return on Rate Base	C
Statement E	Rate Base	E1
Statement F1	AFUDC	F1
Statement F2	Amortization of AFUDC	F2
Statement G	Operating Revenues	G
WorkPaper 1	Input Data	WP1
WorkPaper 2	Volumes and Revenues for the Base and Test Period	WP2
WorkPaper 3	Rate of Return on Equity for the Base and Test Period	WP3

MICHAEL J. WEBB

Vice President

Dr. Webb has more than twenty years of energy industry experience. Dr. Webb has extensive experience in all aspects of pipeline rate regulation at the Federal and State levels. He has participated in numerous projects involving the calculation of cost-based rates. He has also prepared several applications for authority to charge market-based rates on interstate oil pipelines. He has prepared whitepapers and met with FTC Staff to gain approval for mergers on behalf of oil companies. Dr. Webb holds a PhD in economics from George Mason University in Fairfax, Virginia and has published in the journals *Public Choice* and *Natural Gas & Electricity*. His academic interests include applied microeconomics, industrial organization, and auction theory. He has taught courses in Law and Economics, the Economics of Regulation, and the Economics of Energy at the graduate and undergraduate level.

Relevant Experience

Testimony

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| Jun. 10, 2021 | Direct Testimony and Cross Examination on behalf of Cenovus Energy, Inc. before the Canada Energy Regulator ("CER") in Docket for S.C. 2019, c 28, s. 10 regarding the Application of Enbridge Inc. requesting approval of tolling structure involving contract tolls on its Mainline. |
| May 28, 2021 | Submitted Declaration on behalf of San Pablo Bay Pipeline Company before the California Public Utilities Commission addressing the cost of service, cost of capital and achieved return supporting the applicants rate increase. |
| Feb. 21-22, 2021 | Direct Testimony and Cross Examination on behalf of Bandera Master Fund LP et al in the Court of Chancery of the State of Delaware Docket No. 2018-0372-JTL addressing issues related to issues of FERC ratemaking. |
| Dec. 7, 2020 | Submitted Evidence at the request of Cenovus Energy, Inc. before the Canada Energy Regulator ("CER") in Docket for S.C. 2019, c 28, s. 10 regarding the Application of Enbridge Inc. requesting approval of tolling structure involving contract tolls on its Mainline. The Evidence recommended a methodology to employ |

to assess whether the tolls would be just and reasonable and consistent with the public interest.

- | | |
|------------------|---|
| Nov. 10, 2020 | Submitted Affidavit on behalf of SFPP, L.P. at the Federal Energy Regulatory Commission responding to issues rates by FERC Trial Staff and Complainants in Docket No. OR16-6-000 addressing issues related to adjustments to the calculation of the Return on Equity. |
| Oct. 26, 2020 | Oral Testimony on behalf of Colonial Pipeline Company in Docket No. OR18-7-002 addressing the proper methodology to employ in allocating cost between jurisdictional and non-jurisdictional services and issues related to depreciation. |
| Oct. 19, 2020 | Submitted Affidavit on behalf of SFPP, L.P. at the Federal Energy Regulatory Commission in Docket No. OR16-6-000 addressing issues related to adjustments to the calculation of the Return on Equity. |
| Oct. 16, 2020 | Submitted Rebuttal Expert Report on behalf of Bandera Master Fund LP et al in the Court of Chancery of the State of Delaware Docket No. 2018-0372-JTL addressing issues related to issues of FERC ratemaking. |
| Sept. 11, 2020 | Submitted Expert Report on behalf of Bandera Master Fund LP et al in the Court of Chancery of the State of Delaware Docket No. 2018-0372-JTL addressing issues related to issues of FERC ratemaking. |
| Sept. 11, 2020 | Submitted Affidavit on behalf of The Designated Carriers in Docket No. AD20-10-000 responding to issues raised by certain shipper comments regarding the appropriate factors to employ in calculating the Index the FERC applies to adjust oil pipeline rates. |
| Aug. 17, 2020 | Submitted Affidavit on behalf of The Designated Carriers in Docket No. AD20-10-000 regarding the appropriate factors to employ in calculating the Index the FERC applies to adjust oil pipeline rates. |
| Aug. 13-14, 2020 | Provided oral sur-rebuttal testimony and subject to cross examination on behalf of the Board of Supervisors of Loudon County in Docket No. PUR-2019-00218 addressing regulatory issues associated with setting tolls for the privately owned Dulles Greenway. |

Jul. 10, 2020	Submitted Direct Testimony on behalf of Williams MLP Operating LLC and Mockingbird Midstream Gas Services, LLC before the Railroad Commission of Texas in Docket No. GUD-10606 addressing regulatory economics issues associated with price discrimination.
Jun. 26, 2020	Submitted Direct Testimony on behalf of the Board of Supervisors of Loudon County before the State Corporation Commission in Docket No. PUR-2019-00218 addressing regulatory issues associated with setting tolls for the privately owned Dulles Greenway.
May 12-18, 2020	Oral testimony and cross examination on behalf of MPLX Ozark Pipe Line, LLC in Docket No. OR19-14-000 addressing issues related to product and destination markets and HHI calculations.
Apr. 8, 2020	Filed Rebuttal Testimony on behalf of MPLX Ozark Pipe Line, LLC in Docket No. OR19-14-000 addressing issues related to product and destination markets and HHI calculations.
Feb. 20, 2020	Filed Cross-Answering Testimony on behalf of Colonial Pipeline Company in Docket No. OR18-7-002 addressing the proper methodology to employ in allocating cost between jurisdictional and non-jurisdictional services and the economic life to use in depreciation calculations.
Nov. 20, 2019	Filed Answering Testimony on behalf of Colonial Pipeline Company in Docket No. OR18-7-002 addressing the proper methodology to employ in allocating cost between jurisdictional and non-jurisdictional services.
Sep 13, 2019	Filed Supplemental Direct Testimony on behalf of MPLX Ozark Pipe Line, LLC addressing issues related to product and destination markets and HHI calculations in Docket No. OR19-14-000.
Aug. 13, 2019	Filed an affidavit on behalf of Buckeye Pipeline Company, L.P. regarding the calculation of a substantial change in economic circumstances under the Energy Policy Act of 1992, in Docket No. OR19-26-000.
Jul. 5, 2019	Filed an affidavit on behalf of Buckeye Pipeline Company, L.P. regarding the justness and reasonableness of rates it charges to

transport jet fuel to the New York City Airports, in Docket No. OR19-26-000.

- Jun. 26, 2019 Filed an affidavit on behalf of the Association of Oil Pipe Lines discussing issues related to the calculation of the cost of capital in Docket No. PL19-4-000.
- Jun. 19, 2019 Filed an affidavit on behalf of SFPP, L.P. discussing methodology employed to calculate cost of capital used in SFPP's Page 700 in Docket No. IS19-508-000.
- Mar. 27, 2019 Filed an affidavit on behalf of MPLX Ozark Pipe Line, LLC addressing issues related to product and destination markets and HHI calculations in Docket No. OR19-14-000.
- Mar. 20-21, 2019 Oral testimony and cross examination on behalf of White Cliffs Pipeline, LLC at the Federal Energy Regulatory Commission in Docket No. OR18-9-000 addressing issues related to market power.
- Jan. 22, 2019 Filed Rebuttal testimony on behalf of White Cliffs Pipeline, LLC at the Federal Energy Regulatory Commission in Docket No. OR18-9-000 addressing issues related to market power.
- Dec. 21, 2018 Filed Direct testimony on behalf of MPLX Ozark Pipe Line, LLC addressing issues related to product and destination markets and HHI calculations in Docket No. OR19-14-000.
- Sept. 10, 2018 Filed an affidavit on behalf of SFPP, L.P. addressing issues related to rates deemed just and reasonable by the Energy Policy Act of 1992 in Docket No. OR11-13-000 *et al.*
- Aug. 7, 2018 Filed affidavit on behalf of SFPP, L.P. in support of motion to reopen the record with regard to issues related to the impact of the Commission's Policy Statement on Income Tax Allowance in Docket No. IS08-390-000 *et al.*
- Jul. 30, 2018 Filed Supplemental Direct Testimony on behalf of White Cliffs Pipeline, L.L.C. containing a market power analysis in support of White Cliffs' application for authorization to charge market-based rates in Docket No. OR18-9-000
- Jul. 11, 2018 Filed affidavit on behalf of SFPP, L.P. explaining the basis for eliminating ADIT for a MLP that is not entitled to a tax allowance in Docket Nos. IS08-390-000 *et al.*

- Jun. 14, 2018 Filed Prepared Supplement Direct Testimony on behalf of West Texas LPG Pipeline Limited Partnership (“WTP”) addressing issues related to market power analyses in support of WTP’s application for authorization to charge market-based rates in Docket No. OR17-19-000.
- May 2, 2018 Filed Prepared Supplemental Direct Testimony on behalf of Wood River Pipe Lines LLC that contains a market power analyses in support of Wood River’s application for authorization to charge market-based rates in Docket No. OR17-11-000.
- Apr. 9, 2018 Filed affidavit in support of the answer of Buckeye Pipeline Company, L.P. to the protest of various shippers to the tariff filing on Buckeye’s Eastern Products System in Docket No. IS18-229-000.
- Apr. 9, 2018 Filed affidavit in support of the answer of Buckeye Pipeline Company, L.P. to the protest of various shippers to the tariff filing on Buckeye’s Midwest Products System in Docket No. IS18-230-000.
- Mar. 22, 2018 Filed affidavit in support of the answer of White Cliffs Pipeline, L.L.C. to Protest of the Liquids Shippers Group to application of White Cliffs Pipeline, LLC’s request for market-based ratemaking authority.
- Dec. 22, 2017 Filed affidavit in support of the request for rehearing of Plains Marketing, L.P. discussing pricing dynamics in the crude petroleum market.
- Dec. 21, 2017 Prepared Direct Testimony on behalf of White Cliffs Pipeline, L.L.C. in support of application for Market-Based Ratemaking Authority at the Federal Energy Regulatory Commission in Docket No. OR18-8-000.
- Nov. 7, 2017 Cross Examination on behalf of Laurel Pipe Line Company, L.P. at the Pennsylvania Public Utilities Commission in Docket No. A-2016-2575829 supporting Laurel’s request to make operational changes to its pipeline service.
- Nov. 1, 2017 Filed Supplemental Rejoinder testimony on behalf of Laurel Pipe Line Company, L.P. at the Pennsylvania Public Utilities Commission in Docket No. A-2016-2575829 supporting Laurel’s request to make operational changes to its pipeline service.

- Oct. 6, 2017 Filed Rejoinder testimony on behalf of Laurel Pipe Line Company, L.P. at the Pennsylvania Public Utilities Commission in Docket No. A-2016-2575829 supporting Laurel's request to make operational changes to its pipeline service.
- Aug. 31, 2017 Filed Rebuttal testimony on behalf of Laurel Pipe Line Company, L.P. at the Pennsylvania Public Utilities Commission in Docket No. A-2016-2575829 supporting Laurel's request to make operational changes to its pipeline service.
- Aug. 28, 2017 Filed Rebuttal Expert Witness Statement in Suburban Heating Oil Partners, LLC v. Buckeye Terminals LLC before the American Arbitration Association Case No. 01-16-0003-4900 involving the calculation of damages for alleged breach of contract.
- Aug. 7, 2017 Filed affidavit on behalf of Wood River Pipe Line, LLC responding to Protest of the application for Market-Based Ratemaking Authority at the Federal Energy Regulatory Commission in Docket No. OR17-11-000.
- Jul. 20, 2017 Cross Examination in Suburban Heating Oil Partners, LLC v. Buckeye Terminals LLC before the American Arbitration Association Case No. 01-16-0003-4900 involving the calculation of damages for alleged breach of contract.
- Jun. 26, 2017 Filed Rebuttal Expert Witness Statement in Suburban Heating Oil Partners, LLC v. Buckeye Terminals LLC before the American Arbitration Association Case No. 01-16-0003-4900 involving the calculation of damages for alleged breach of contract.
- Jun. 19, 2017 Filed Expert Witness Statement in Suburban Heating Oil Partners, LLC v. Buckeye Terminals LLC before the American Arbitration Association Case No. 01-16-0003-4900 involving the calculation of damages for alleged breach of contract.
- May 5, 2017 Filed Direct testimony on behalf of Wood River Pipe Line, LLC in support of application for Market-Based Ratemaking Authority at the Federal Energy Regulatory Commission in Docket No. OR17-11-000.
- Mar. 8, 2017 Oral testimony and cross examination of Crimson Pipeline, L.P. at the California Public Utilities Commission in Docket No. A.16-03-009 addressing issues related to cost of capital, risk and the use of the cost-of-service methodology in assessing whether rates are just and reasonable.

- Feb. 7, 2017 Filed Direct testimony on behalf of Laurel Pipe Line Company, L.P. at the Pennsylvania Public Utilities Commission in Docket No. A-2016-2575829 supporting Laurel's request to make operational changes to its pipeline service.
- Feb. 3, 2017 Filed 2nd Supplemental Rebuttal Testimony on behalf of West Texas LPG Pipeline Limited Partnership at the Railroad Commission of Texas in GUD No. 10455 regarding the calculation of cost-based rates in the presence of competition.
- Feb. 2, 2017 Oral testimony and cross examination in on behalf of SFPP, L.P. at the Federal Energy Regulatory Commission in Docket No. OR16-6-000 addressing issues related to cost of capital, risk, and billing determinants used to set cost-based rates for SFPP.
- Jan. 16, 2017 Filed Rebuttal Testimony on behalf of Crimson Pipeline, L.P. at the California Public Utilities Commission in Docket No. A.16-03-009 addressing issues related to cost of capital, risk and the use of the cost-of-service methodology in assessing whether rates are just and reasonable.
- Oct. 28, 2016 Filed Prepared Answering Testimony in response to Commission Trial Staff on behalf of SFPP, L.P. at the Federal Energy Regulatory Commission in Docket No. OR16-6-000 addressing issues related to the cost of capital.
- Oct. 21, 2016 Filed Supplemental Rebuttal Testimony on behalf of West Texas LPG Pipeline Limited Partnership at the Railroad Commission of Texas in GUD No. 10455 regarding the calculation of cost-based rates in the presence of competition.
- Oct. 18, 2016 Filed Prepared Answering Testimony in response to Commission Trial Staff on behalf of SFPP, L.P. at the Federal Energy Regulatory Commission in Docket No. OR16-6-000 addressing issues related to test period volumes and market evaluation.
- Sep. 19, 2016 Filed Affidavit on behalf of Enterprise TE Products Pipeline Company, LLC in Docket No. OR16-23-000, addressing issues related to cost-of-service and cost-allocation.
- Sep. 16, 2016 Filed Rebuttal Testimony on behalf of West Texas LPG Pipeline Limited Partnership at the Railroad Commission of Texas in GUD No. 10455 regarding economic theory underpinning the analysis of market rates.

- Aug. 17, 2016 Filed Direct Testimony on behalf of Crimson Pipeline, L.P. at the California Public Utilities Commission in Docket No. A.16-03-009 addressing issues related to cost of capital, risk and the use of the cost-of-service methodology in assessing whether rates are just and reasonable.
- Aug. 12, 2016 Filed Answering Testimony on behalf of SFPP, L.P. at the Federal Energy Regulatory Commission in Docket No. OR16-6-000 addressing issues related to cost of capital, risk, and billing determinants used to set cost-based rates for SFPP.
- Aug. 1, 2016 Filed Direct Testimony in support of the application for market-based ratemaking authority of Buckeye Linden Pipe Line Company LLC.
- Jul. 25, 2016 Provided Verified Statement on behalf of Crimson Pipeline, L.P. at the California public Utilities Commission in Docket No. A.16-03-009 addressing issues raised by shippers in response to request for emergency rate relief
- Jun. 15, 2016 Provided Verified Statement on behalf of Crimson Pipeline, L.P. at the California public Utilities Commission in Docket No. A.16-03-009 regarding the need for emergency rate relief.
- Mar. 11, 2016 Provided Testimony on behalf of Crimson Pipeline, L.P. at the California Public Utilities Commission in Docket No. A.16-03-009 regarding achieved return and cost of capital
- Oct. 8, 2015 Presented Oral Testimony on behalf of Buckeye Pipe Line Company, L.P. at FERC in Docket No. OR14-4-000 responding to testimony regarding the competitive status of certain markets served by the carrier
- Jul. 1, 2015 Provided Testimony on behalf of Newfield Production Company at the 269th District Court in Case No. 201534624 regarding FERC process and principles related to committed rates
- Jun. 26, 2015 Filed Prepared Answering Testimony on behalf of Buckeye Pipe Line Company, L.P. at FERC in Docket No. OR14-4-000 responding to testimony regarding the competitive status of certain markets served by the carrier
- May 15, 2015 Filed Prepared Rebuttal Testimony on behalf of Zydeco Pipeline Company LLC at FERC in Docket No. IS14-607-000 *et al* responding to overhead cost allocation, rate design and cost of capital related issues

- Mar. 24-27, 2015 Presented Oral Testimony at FERC on behalf of Buckeye Pipe Line Company, L.P. in Docket No. OR12-28-001 regarding economic principles of cost allocation and evaluation of allocation methodology
- Jan. 20, 2015 Filed Prepared Answering Testimony at FERC on behalf of Buckeye Pipe Line Company, L.P. in Docket Nos. OR14-4-000 *et al.* regarding analyses underlying a market power determination
- Dec. 19, 2014 Filed Prepared Answering Testimony Responding to Commission Trial Staff at FERC on behalf of Buckeye Pipe Line Company, L.P. in Docket No. OR12-28-001 regarding economic principles of cost allocation and evaluation of allocation methodology
- Dec. 15, 2014 Filed Direct Testimony at FERC on behalf of Zydeco Pipeline Company LLC in Docket No. IS14-607-000 *et al.* discussing regarding cost allocation and cost of capital issues
- Oct. 7, 2014 Filed Prepared Answering Testimony on behalf of Buckeye Pipe Line Company, L.P. at FERC in Docket No. OR12-28-001 regarding economic principles of cost allocation and evaluation of allocation methodology
- Aug. 7, 2014 Filed Rebuttal Written Evidence at the Canadian National Energy Board on behalf of Shell Trading Canada on matters regarding apportionment methodologies in Hearing Order RHW-001-2013
- Jul. 27, 2014 Filed Affidavit on behalf of SFPP, L.P. in Docket No. OR14-35 regarding the efficiency of the FERC's indexing methodology
- Jun. 4, 2014 Filed Direct Testimony at FERC on behalf of Shell Pipeline Company, L.P. in Docket No. IS14-104-000 *et al.* discussing regarding cost allocation and cost of capital issues
- Apr. 25, 2014 Filed Direct Written Evidence at the Canadian National Energy Board on behalf of Shell Trading Canada on matters regarding apportionment methodologies in Hearing Order RHW-001-2013
- Nov. 12-14, 2013 Presented oral testimony, cross examination before the Virginia State Corporation Commission regarding cost-of-service and rate design issues for a private toll road in PUE-2013-00011
- Nov. 4, 2013 Filed Affidavit at FERC on behalf of Buckeye Pipeline Company, L.P. in Docket No. OR14-4 in support of its motion to dismiss

- Oct. 15, 2013 Filed Rebuttal testimony at the Virginia State Corporation Commission regarding cost-of-service regulation and ratemaking issues in Case No. PUE-2013-00011
- Sept. 23, 2013 Filed prepared testimony at the Regulatory Commission of Alaska on behalf of BP Pipelines (Alaska) Inc. calculating a cost-based rate and providing theoretical support in Docket No. TL143-311
- Apr. 30, 2013 Submitted Joint Expert Report to the Virginia State Corporation Commission regarding cost-of-service regulation and ratemaking issues in Case No. PUE-2013-00011
- Apr. 29, 2013 Presented oral testimony and cross examination at the California Public Utilities Commission on behalf of SFPP, L.P. discussing theoretical principles of cost allocation with regard to Application No. 09-05-014
- Dec. 12, 2012 Filed Rebuttal Testimony at FERC on behalf of Enterprise TE Products Pipeline Company LLC in Docket No. IS12-203-000 on matters relating to rate design and cost-of-capital
- Nov. 5, 2012 Filed Direct Testimony at the California Public Utilities Commission on behalf of SFPP, L.P. discussing theoretical principles of cost allocation with regard to Application No. 09-05-014
- Oct. 10, 2012 Filed Verified Statement at FERC on behalf of Buckeye Pipeline Company, L.P. in Docket No. OR12-28-000 regarding the justness and reasonableness of the pipeline's rates
- Jul. 18, 2012 Filed Affidavit at FERC on behalf of Association of Oil Pipe Lines in Docket No. OR12-4-000 on issues related to assessing competition in the context of applications for market-based ratemaking authority
- Jul. 16, 2012 Filed Reply Verified Statement at FERC on behalf of Buckeye Pipeline Company, L.P. in Docket No. IS12-185-000
- Jul. 9, 2012 Filed Prepared Direct Testimony at FERC on behalf of Enterprise TE Products Pipeline Company LLC in Docket No. IS12-203-000 on matters relating to rate design and cost-of-capital
- May 15, 2012 Filed Verified Statement at FERC on behalf of Buckeye Pipeline Company, L.P. in Docket No. IS12-185-000 addressing issues related to ratemaking in the context of the company's ratemaking program

- Apr. 18-20, 2012 Presented oral testimony and responded to questions of Commissioners at the Public Service Commission of the State of Wyoming on behalf of Belle Fourche Pipeline Company in Docket no. 50000-61-PR-11 on issues related to cost-of-service and cost-of-capital
- Feb. 1, 2012 Filed Supplement Direct Testimony at the Public Service Commission of the State of Wyoming on behalf of Belle Fourche Pipeline Company in Docket No. 50000-61-PR-11 on issues related to cost-of-service and cost of capital
- Jan. 10-11, 2012 Presented Oral Testimony and cross examination at the FERC on behalf of Enbridge Pipelines (Southern Lights) LLC in Docket Nos. IS10-399-000 *et al.* on issues related to cost-of-service and rate design
- Jan. 9, 2012 Filed Supplemental Direct Testimony at FERC on behalf of SFPP, L.P. in Docket No. IS11-444-001 revising calculations to accord with Commission's new cost-of service ruling
- Jan. 6, 2012 Filed Rebuttal Testimony before the State Corporation Commission of the State of Kansas on behalf of Mid-America Pipeline Company, LLC in Docket No. 12-MDAP-068-RTS on issues related to cost-of-service and rate design
- Dec. 13, 2011 Filed Direct Testimony at FERC on behalf of SFPP, L.P. in Docket No. IS11-444-001 regarding the proposed indexation of pipeline rates and the economic principles of the Commission's indexing methodology
- Nov. 1, 2011 Filled Rebuttal Testimony at the Federal Regulatory Commission on behalf of Enbridge Pipelines (Southern Lights) LLC in Docket Nos. IS10-399-000 *et al.* on issues related to cost-of-service and rate design
- Oct. 25, 2011 Filed Affidavit on behalf of Mid-America Pipeline Company, LLC before the State Corporation Commission of the State of Kansas in Docket No. 12-MDAP-068-RTS in support of a Motion to Compel
- Oct. 14, 2011 Filed Direct Testimony before the Public Service Commission of the State of Wyoming on behalf of Belle Fourche Pipeline Company in Docket No. 50000-61-PR-11 on issues related to cost-of-service and cost-of-capital
- Aug. 19, 2011 Filed Direct Testimony before the State Corporation Commission of the State of Kansas on behalf of Mid-America Pipeline

Company, LLC in Docket No. 12-MDAP-068-RTS on issues related to cost-of-service and rate design

- Jun. 7, 2011 Filed Direct Testimony at FERC on behalf of Enbridge Pipelines (Southern Lights) LLC in Docket Nos. IS10-399-000, *et al.* on issues related to cost-of-service and rate design
- Jul. 2, 2010 Presented oral cross examination of behalf of SFPP, L.P. addressing issues associated with cost allocation and volume projections in Docket No. IS09-437
- May 14, 2010 Filed Rebuttal Testimony on behalf of SFPP, L.P. addressing issues associated with cost allocation, and volume projections in Docket No. IS09-437
- May 10-11, 2010 Presented oral cross examination behalf of San Pablo Bay Pipeline Company, LLC at the California Public Utility Commission supporting its Application for market based rates in Docket No. A.08-09-024
- Apr. 15, 2010 Filed Direct Testimony on behalf of Kuparuk Transportation Company on cost of service issues before the Regulatory Commission of Alaska
- Feb. 23-24, 2010 Presented oral Testimony on behalf of SFPP, L.P. at the California Public Utilities Commission addressing issues associated with competition, sound regulatory policy, and macro-economic conditions in Docket No. 09-05-014
- Feb. 8, 2010 Filed Rebuttal Testimony on behalf of San Pablo Bay Pipeline Company LLC in Docket No. A-08-09-024 addressing issues related to competitive analysis of its markets
- Jan. 25, 2009 Filed Rebuttal Testimony on behalf of SFPP, L.P. at the California Public Utilities Commission addressing issues associated with competition, sound regulatory policy and macro-economic conditions in Docket No. A. 09-05-014
- Dec. 29, 2009 Filed Verified Statement on behalf of San Pablo Bay Pipeline, LLC supporting Motion to Compel in Docket No. A 08-09-024
- Dec. 11, 2009 Filed Direct Testimony on behalf of SFPP, L.P. addressing issues associated with cost-allocation, and volume projections in Docket No. IS09-437

- Sept. 21, 2009 Filed Affidavit supporting SFPP, L.P.'s Petition for Rehearing in Docket No. IS09-437
- Jun. 26, 2009 Presented Oral Sur-rebuttal testimony on behalf of SFPP, L.P. addressing issues associated with volume projections and economic conditions
- Jun. 18-19, 2009 Presented Oral Testimony on behalf of SFPP, L.P. at FERC in Docket No. IS08-390-002 addressing issues discussed in prepared Direct and Rebuttal Testimony
- Mar. 27, 2009 Filed Rebuttal Testimony at FERC discussing cost-allocation, depreciation, and the economic conditions associated with demand for refined petroleum products in SFPP's destination market
- Jan. 13, 2009 Filed Sworn Declaration on behalf of San Pablo Bay Pipeline, LLC supporting its Response to Tesoro's Motion for Summary Adjudication in Docket No. A.08-09-024
- Dec. 2-4, 2008 Presented Oral Testimony on behalf of SFPP, L.P. at FERC addressing theoretical issues related to allocation of cost and the economic life of the pipeline
- Oct. 16, 2008 Filed Direct Testimony at FERC on behalf of SFPP, L.P. in Docket No. IS08-390-002 discussing theoretical principles of cost allocation
- Sept. 30, 2008 Filed Direct Testimony on behalf of San Pablo Bay Pipeline Company LLC at the California Public Utilities Commission in Docket No. A.08-09-024 supporting its market based rates and examining the competition in origin and destination markets using conventional measures of market concentration and competition
- Sept. 9, 2008 Filed Answering Testimony at FERC on behalf of SFPP, L.P. in Docket No. OR03-5-000, discussing theoretical issues associated with cost-allocation and the economic life of the pipeline
- Jul. 6, 2007 Filed Affidavit at FERC in support of a motion for rehearing of Frontier Pipeline Company in Docket No. OR01-2-000 and OR01-4-000 discussing calculation of refunds owed by Frontier.

Rate Regulation Issues

- Led the project team in developing data and preparing cost-of-service calculation in cost-based rate cases. Assisted multiple witnesses in drafting testimony regarding FERC requirements for cost-based ratemaking.

- Prepared cost-of-service filings, consistent with FERC regulations in 18 CFR § 346.2 on behalf of numerous oil pipelines.
- Assisted counsel in preparing cross examination regarding cost-based ratemaking and regulatory theory.
- Assisted multiple witnesses in drafting testimony presenting Stand-Alone Cost theory to the FERC.

Antitrust Matters

- Prepared a whitepaper for the Federal Trade Commission analyzing the competitive impact of a pipeline acquisition in the Eastern Pennsylvania area.
- Developed a computer-based model to analyze the competitive impact of an oil pipeline acquisition in the mid-continent region. Prepared a detailed whitepaper explaining the theory behind the analysis and the results of the analysis. Met with FTC Staff to discuss the results of the analysis.
- Analyzed the competitive impact of a refinery acquisition in the northeastern United States. Constructed a computer-based simulation based on publicly available data and an analysis of how the acquisition would impact the market. Prepared multiple whitepapers reporting results of the analysis. Met with FTC Staff to discuss the results of the analysis.

Market-Based Rate Filings

- Assisted in the preparation of an application for market-based ratemaking authority and associated exhibits consistent with 18 CFR § 348 on behalf of Sunoco Pipeline, LP's market-based rate filing.
- Assisted in the preparation of expert testimony and exhibits filed in Shell Pipe Line Company LP in market-power case.
- Participated in the development of applications for market-based ratemaking authority on behalf of Chase Pipeline Company, Inc. West Shore Pipeline Company, Inc, and Marathon-Ashland Pipe Line LLC.

Acquisition Due Diligence

- Participated in a project team analyzing the regulatory risk that a private equity fund faced if it acquired a controlling interest in liquids.
- Participated in a project team analyzing the regulatory risk that a pipeline company considering a conversion in ownership structure from a corporation to a master limited partnership could face if its rates were contested by its shippers.

Involvement in Prior Regulatory Matters

FERC Matters

OR03-5-001	Complaint against the rates of SFPP's North Line and Oregon Line
IS05-216-000	Protest against the rates of Mid-America Pipeline
IS05-82-000, IS06-01-000	Protest and Complaint against TAPS CARRIERS rates
OR05-7-000	Sunoco Logistics Partners, L.C. Market Based Rate filing
OR96-2-000, IS98-1-000	Protest and complaint against SFPP's Sepulveda pipeline system
OR05-1-000	Petition for Declaratory Order Filed by Enbridge's Spearhead pipeline
OR01-2-000	Calculating reparations owed by Frontier to Big West and Chevron
OR02-10-000	Shell Pipe Line Company, LP application for market-based ratemaking authority
IS02-384-000	Protest and Complaint against Platte Pipe Line Company and Express Pipeline Company, LLC
OR96-2-000	Complaint against SFPP's rates
OR01-06-000	Application of West Shore Pipe Line Company for market-based ratemaking authority
OR01-03-000, OR01-05-000	Complaint against the rates of Anschutz Ranch East Pipeline Inc.
OR01-02-000, OR01-04-000	Complaint against the rates of Frontier Pipeline Company
OR01-1-000	Application of Chase Transportation Company for market-based ratemaking authority
OR00-1-000	Application of Marathon-Ashland Pipe Line, LLC for

market-based ratemaking authority

State Matters

- | | |
|-----------------|--|
| PUR-2019-00218 | Application of Toll Road Investors Partnership II, L.P. for Authorization for an Increase in the Maximum Level of Tolls at the Commonwealth of Virginia State Corporation Commission |
| P-03-4 | Protest and complaint at the Regulatory Commission of Alaska against the rates of the TAPS Carriers |
| TO-01147 | Protest against Olympic Pipe Line Company, Inc's rate increase at the Washington Utilities and Telecommunications Commission |
| P97-4 and P97-7 | Protest and complaint at the Regulatory Commission of Alaska against the rates of the TAPS Carriers |
| TX 1999-00532 | Challenge to Arizona tax court's determination that SFPP's property should be valued at other than original cost |

Other Entities

- | | |
|--------------------------|--|
| Docket No. 42084 | Analyzing the return of Valero's ammonia pipeline |
| Civ No. 96-Z-2451 | Challenge to the rates charged by a CO ₂ Pipeline in Federal District Court |
| Case No. 70 198 00294-99 | Challenge to a pro-rationing policy of Amoco Oil Company filed before the American Arbitration Association |

Publications and Presentations

- "Pipeline Economics 101" Presented at the 2019, 2018, 2017, 2016, 2011, and 2010 Annual Business Conference of the Association of Oil Pipe Lines
- "Allocating Pipeline Capacity and Priority Service" Presented at the 2018 Annual Business Conference of the Association of Oil Pipe Lines

“State Regulation” Presented at the 2019 and 2018 Annual Business Conference of the Association of Oil Pipe Lines

“Market-Based Rates” Presented at the 2017, 2016, 2015, 2014, 2013, and 2012 Annual Business Conference of the Association of Oil Pipe Lines

“Allocating Pipeline Capacity: Navigating Shipper Issues in Priority Service and Proration Policies” Presented at the 2018 Annual Business Conference of the Association of Oil Pipelines

“State-Based Regulation” Presented at the 2017 Annual Business Conference of the Association of Oil Pipe Lines

“State Pipeline Regulation: Survey of Developments & Implications for FERC Regulation” Presented at the 2018 and 2017 Annual Business Conference of the Association of Oil Pipelines

“Introduction to FERC Ratemaking” Presented at the 2018, 2017, 2016, 2015 and 2014 Annual Business Conference of the Association of Oil Pipe Lines

“Cost of Service Concepts” Presented at the 2016, 2015 Annual Business Conference of the Association of Oil Pipe Lines

“Pipeline Update” Presented at the November 2014 Mexican Energy Infrastructure Symposium

Webb, M.J and Williams, J.C “Price Regulation Allowing NGL Pipelines to Adjust to Current Conditions” Natural Gas & Electricity (August 2013) 17-22

Presentation at EUCI regarding all aspects of ratemaking for the liquid pipeline industry, December 2012

“Regulatory Basics for Oil Pipelines” Presented at the 2015, 2013, 2012, 2011, 2010, and 2009 Annual Business Conference of the Association of Oil Pipe Lines

“Ratemaking: Beyond the Basics” Presented at the 2011, 2010, 2009, and 2008 Annual Business Conference of the Association of Oil Pipe Lines

“New Developments in Pipeline Expansions: Executing the Deal” Presented at the 2011 Annual Business Conference of the Association of Oil Pipe Lines

“FERC 101” Presented at the 2008 and 2007 Annual Business Conference of the Association of Oil Pipe Lines

The Political Economy of the Israel Palestine Conflict: An Evolutionary Game Theory Approach: Doctoral Dissertation

Rowley, C.K and M. J. Webb “Israel and Palestine: the slow road to peace or the fast track to mutual annihilation” Public Choice (July 2007) 132: 7-26



“The Antitrust Review of Oil Pipe Line Mergers at the FTC” Presented that the 2007 Annual Business Conference of the Association of Oil Pipe Lines

“Surviving a Rate Case” Presented at the 2006 Annual Business Conference of the Association of Oil Pipe Lines

Previous Relevant Employment

<i>Association of Oil Pipe Lines (1997-1998)</i>	<i>Intern</i> Prepared statistical analysis of pipe line failures from publicly available sources. Assisted Executive Director in employing economic theory to address industry concerns.
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Education

<i>George Mason University</i>	PhD, Economics MA, Economics
<i>American University</i>	BA (<i>Magna Cum Laude</i>) International Relations, Economics

Exhibit MJW-2

Crimson SOCAL Pipeline Company

2021 COS Rate Filing

Achieved Return for the Test Period

Achieved Return

Line Description No.	Source	@ Effective Rates	@ Cost-Based Rates	@ Proposed Rates
<u>Achieved Return</u>				
1 Transportation Revenues	Line 54	\$24,245,622	\$30,692,414	\$26,670,327
2 Allowance Oil Revenue	WorkPaper 2, Line 40	\$3,817,260	\$3,817,260	\$3,817,260
3 Other Revenues	WorkPaper 2, Sum Lns (41 to 44)	\$276,626	\$276,626	\$276,626
4 Total Revenues	Sum Lns (1 to 3)	28,339,508	34,786,299	30,764,213
5 Operating Expenses Excluding Depreciation	Statement A, Line 2	\$27,500,146	\$27,500,146	\$27,500,146
6 Depreciation Expense	Statement A, Line 3	\$2,243,377	\$2,243,377	\$2,243,377
7 Amortization of AFUDC	Statement A, Line 4	\$42,985	\$42,985	\$42,985
8 Total Expenses	Sum Lns (5 to 7)	\$29,786,508	\$29,786,508	\$29,786,508
9 Operating Income	Lines (4 - 8)	(\$1,447,000)	\$4,999,791	\$977,705
10 Average Original Cost Rate Base	Statement C, Line 1	\$44,036,299	\$44,036,299	\$44,036,299
11 Achieved Overall Return on Rate Base	Lines (9 / 10)	-3.29%	11.35%	2.22%
12 Weighted Cost of Debt	Statement C, Line 9	2.60%	2.60%	2.60%
13 Weighted Rate of Return on Equity	Lines (11 - 12)	-5.89%	8.75%	-0.38%
14 Equity Ratio	WorkPaper 1, Line 20	60.00%	60.00%	60.00%
15 Achieved Rate of Return on Equity	Lines (13 / 14)	-9.81%	14.59%	-0.63%

Exhibit MJW-2

Crimson SOCAL Pipeline Company

2021 COS Rate Filing

Achieved Return for the Test Period

Achieved Return

Line No.	Description	Source	@ Effective Rates	@ Cost-Based Rates	@ Proposed Rates
<u>Transportation Revenues</u>					
16	From Stewart Truck Rack, Orange County to Stewart Station, Orange County	Proposed Rates, Line 1 * WorkPaper 2, Line 1, Test Period	\$76,226	\$96,495	\$83,844
17	From Butler Road Line, LA County to Norwalk Station, LA County	Proposed Rates, Line 2 * WorkPaper 2, Line 2, Test Period	\$522,758	\$661,757	\$575,046
18	From Norwalk Station, LA County to Phillips 66 Carson Refinery, LA County	Proposed Rates, Line 3 * WorkPaper 2, Line 3, Test Period	\$1,593,941	\$2,017,762	\$1,753,424
19	From Stewart Station, Orange County to Phillips 66 Carson Refinery, LA County	Proposed Rates, Line 4 * WorkPaper 2, Line 4, Test Period	\$1,494,336	\$1,891,672	\$1,643,741
20	From Santa Paula Truck Rack, Ventura County to Santa Paula Station, Ventura County	Proposed Rates, Line 5 * WorkPaper 2, Line 5, Test Period	\$4,813	\$6,093	\$5,294
21	From Santa Paula Truck Rack, Ventura County to Torrey Station, Ventura County	Proposed Rates, Line 6 * WorkPaper 2, Line 6, Test Period	\$31,313	\$39,639	\$34,443
22	From Mandalay Area (Line #830), Ventura County to Ventura Station, Ventura County	Proposed Rates, Line 7 * WorkPaper 2, Line 7, Test Period	\$39,542	\$50,056	\$43,497
23	From Mandalay Area (Line #830), Ventura County to Torrey Station, Ventura County	Proposed Rates, Line 8 * WorkPaper 2, Line 8, Test Period	\$248,372	\$314,413	\$273,215
24	From Saticoy Junction, Ventura County to Santa Paula Station, Ventura County	Proposed Rates, Line 9 * WorkPaper 2, Line 9, Test Period	\$1,640	\$2,076	\$1,804
25	From Saticoy Junction, Ventura County to Torrey Station, Ventura County	Proposed Rates, Line 10 * WorkPaper 2, Line 10, Test Period	\$7,955	\$10,071	\$8,751
26	From Sulphur Crest Area Gathering, Ventura County to Santa Paula Station, Ventura County	Proposed Rates, Line 11 * WorkPaper 2, Line 11, Test Period	\$81,398	\$103,041	\$89,539
27	From Sulphur Crest Area Gathering, Ventura County to Torrey Station, Ventura County	Proposed Rates, Line 12 * WorkPaper 2, Line 12, Test Period	\$20,612	\$26,093	\$22,674
28	From Torrey Area Gathering, Ventura County to Santa Paula Station, Ventura County	Proposed Rates, Line 13 * WorkPaper 2, Line 13, Test Period	\$24,564	\$31,096	\$27,021
29	From Torrey Area Gathering, Ventura County to Torrey Station, Ventura County	Proposed Rates, Line 14 * WorkPaper 2, Line 14, Test Period	\$112,391	\$142,275	\$123,632
30	From Ventura Station, Ventura County to PBF Junction, LA County	Proposed Rates, Line 15 * WorkPaper 2, Line 15, Test Period	\$187,979	\$237,961	\$206,778
31	From Ventura Station, Ventura County to Torrance Station, LA County	Proposed Rates, Line 16 * WorkPaper 2, Line 16, Test Period	\$1,670,174	\$2,114,265	\$1,837,205
32	From San Paula Station, Ventura County to PBF Junction, LA County	Proposed Rates, Line 17 * WorkPaper 2, Line 17, Test Period	\$46,327	\$58,645	\$50,960
33	From San Paula Station, Ventura County to Torrance Station, LA County	Proposed Rates, Line 18 * WorkPaper 2, Line 18, Test Period	\$657,199	\$831,945	\$722,924
34	From Torrey Station, Ventura County to Torrance Station, LA County	Proposed Rates, Line 19 * WorkPaper 2, Line 19, Test Period	\$258,106	\$326,735	\$283,918

Exhibit MJW-2

Crimson SOCAL Pipeline Company

2021 COS Rate Filing

Achieved Return for the Test Period

Achieved Return

Line No.	Description	Source	<u>@</u> <u>Effective</u> <u>Rates</u>	<u>@</u> <u>Cost-Based</u> <u>Rates</u>	<u>@</u> <u>Proposed</u> <u>Rates</u>
35	From Torrey Station, Ventura County to PBF Junction, LA County	Proposed Rates, Line 20 * WorkPaper 2, Line 20, Test Period	\$290,706	\$368,004	\$319,779
36	From Las Cienegas Line, LA County to Line #600, Venice Tie-in, LA County	Proposed Rates, Line 21 * WorkPaper 2, Line 21, Test Period	\$56,662	\$71,728	\$62,330
37	From Line #600, Pico Tie-in, LA County to Torrance Station, LA County	Proposed Rates, Line 22 * WorkPaper 2, Line 22, Test Period	\$95,188	\$120,498	\$104,704
38	From Line # 600, Venice Tie-in, LA County to Torrance Station, LA County	Proposed Rates, Line 23 * WorkPaper 2, Line 23, Test Period	\$118,354	\$149,823	\$130,186
39	From Mohawk Station, Ventura County to Ventura Tank Farm, Ventura County	Proposed Rates, Line 24 * WorkPaper 2, Line 24, Test Period	\$130,039	\$164,616	\$143,029
40	From Ventura Tank Farm, Ventura County to PBF Junction, Phillips 66 Carson Refinery, Lomita Manifold Area, LA County	Proposed Rates, Line 25 * WorkPaper 2, Line 25, Test Period	\$808,713	\$1,023,746	\$889,553
41	From Ventura Tank Farm, Ventura County to PBF Junction, LA County	Proposed Rates, Line 26 * WorkPaper 2, Line 26, Test Period	\$3,563,830	\$4,511,434	\$3,920,072
42	From Ventura Tank Farm, Ventura County to Marathon Los Angeles Refinery, LA County	Proposed Rates, Line 27 * WorkPaper 2, Line 27, Test Period	\$35,144	\$44,489	\$38,657
43	From Inglewood Connection, LA County to Torrance Station, LA County	Proposed Rates, Line 28 * WorkPaper 2, Line 28, Test Period	\$2,050,490	\$2,595,705	\$2,255,560
44	From Lomita Manifold Area, LA County to Andeavor Los Angeles Refinery, LA County	Proposed Rates, Line 29 * WorkPaper 2, Line 29, Test Period	\$20,027	\$25,352	\$22,031
45	From Ventura, Ventura County to Ventura Tank Farm, Ventura County	Proposed Rates, Line 30 * WorkPaper 2, Line 30, Test Period	\$1,227,276	\$1,553,603	\$1,349,846
46	From Sespe, Ventura County to Ventura Tank Farm, Ventura County	Proposed Rates, Line 31 * WorkPaper 2, Line 31, Test Period	\$60,187	\$76,190	\$66,207
47	From Beta, LA County to Marathon Los Angeles Refinery, Phillips 66 Los Angeles Refinery, Valero Refinery, LA County	Proposed Rates, Line 32 * WorkPaper 2, Line 32, Test Period	\$4,775,641	\$6,045,460	\$5,253,701
48	From Inglewood Area, Inglewood CA, LA County to Crimson Inglewood Connection, LA County	Proposed Rates, Line 33 * WorkPaper 2, Line 33, Test Period	\$758,373	\$960,020	\$834,146
49	From Huntington Beach Area, Orange County to World Oil Refinery South Gate, LA County	Proposed Rates, Line 34 * WorkPaper 2, Line 34, Test Period	\$943,310	\$1,194,131	\$1,037,615
50	From Huntington Beach Area, Orange County to Paramount Petroleum Refinery, LA County	Proposed Rates, Line 35 * WorkPaper 2, Line 35, Test Period	\$819,647	\$1,037,587	\$901,589
51	From Seal Beach Area, LA County to Paramount Petroleum Refinery, LA County	Proposed Rates, Line 36 * WorkPaper 2, Line 36, Test Period	\$983,443	\$1,244,936	\$1,081,740
52	From Huntington Beach Gathering, Orange County to Crimson Northam Trunkline System	Proposed Rates, Line 37 * WorkPaper 2, Line 37, Test Period	\$420,400	\$532,182	\$462,471
53	From Brea Canon Lease, LA County to Phillips 66 Carson Refinery, Lomita Manifold Area, Andeavor Los Angeles Refinery, LA County	Proposed Rates, Line 38 * WorkPaper 2, Line 38, Test Period	\$8,548	\$10,821	\$9,403
54	Transportation Revenues Total	Sum Lns (16 to 53)	24,245,622	30,692,414	26,670,327

Exhibit MJW-3

Proposed Rates

Crimson SOCAL Pipeline Company

2021 COS Rate Filing

Proposed Rates per Route

Line	System	Receipt Location	Delivery Location	Effective Pipeline Rates in \$/Bbl	Cost-Based Pipeline Rates in \$/Bbl	Proposed Pipeline Rates in \$/Bbl	Proposed Pipeline Rate Increase in %
1/							
1	East Crude System (Line 700) Gathering	Stewart Truck Rack, Orange County	Stewart Station, Orange County	\$0.3012	\$0.3813	\$0.3313	10.0%
2		Butler Road Line, LA County	Norwalk Station, LA County	\$0.4429	\$0.5607	\$0.4872	10.0%
3	East Crude System (Line 700) Trunk	Norwalk Station, LA County	Phillips 66 Carson Refinery, LA County	\$0.9035	\$1.1437	\$0.9939	10.0%
4		Stewart Station, Orange County	Phillips 66 Carson Refinery, LA County	\$1.0452	\$1.3231	\$1.1497	10.0%
5	Ventura/Santa Paula/Torrey Gathering	Santa Paula Truck Rack, Ventura County	Santa Paula Station, Ventura County	\$0.3012	\$0.3813	\$0.3313	10.0%
6		Santa Paula Truck Rack, Ventura County	Torrey Station, Ventura County	\$0.3012	\$0.3813	\$0.3313	10.0%
7		Mandalay Area (Line #830), Ventura County	Ventura Station, Ventura County	\$0.4429	\$0.5607	\$0.4872	10.0%
8		Mandalay Area (Line #830), Ventura County	Torrey Station, Ventura County	\$0.4429	\$0.5607	\$0.4872	10.0%
9		Saticoy Junction, Ventura County	Santa Paula Station, Ventura County	\$0.4429	\$0.5607	\$0.4872	10.0%
10		Saticoy Junction, Ventura County	Torrey Station, Ventura County	\$0.4429	\$0.5607	\$0.4872	10.0%
11		Sulphur Crest Area Gathering, Ventura County	Santa Paula Station, Ventura County	\$0.4429	\$0.5607	\$0.4872	10.0%
12		Sulphur Crest Area Gathering, Ventura County	Torrey Station, Ventura County	\$0.4429	\$0.5607	\$0.4872	10.0%
13		Torrey Area Gathering, Ventura County	Santa Paula Station, Ventura County	\$0.4429	\$0.5607	\$0.4872	10.0%
14		Torrey Area Gathering, Ventura County	Torrey Station, Ventura County	\$0.4429	\$0.5607	\$0.4872	10.0%
15	Line 600 Trunk	Ventura Station, Ventura County	PBF Junction, LA County	\$1.1869	\$1.5025	\$1.3056	10.0%
16		Ventura Station, Ventura County	Torrance Station, LA County	\$1.1869	\$1.5025	\$1.3056	10.0%
17		San Paula Station, Ventura County	PBF Junction, LA County	\$1.1869	\$1.5025	\$1.3056	10.0%
18		San Paula Station, Ventura County	Torrance Station, LA County	\$1.1869	\$1.5025	\$1.3056	10.0%
19		Torrey Station, Ventura County	Torrance Station, LA County	\$1.1869	\$1.5025	\$1.3056	10.0%
20		Torrey Station, Ventura County	PBF Junction, LA County	\$1.1869	\$1.5025	\$1.3056	10.0%
21	West LA Gathering	Las Cienegas Line, LA County	Line #600, Venice Tie-in, LA County	\$0.4429	\$0.5607	\$0.4872	10.0%
22	West LA Trunk	Line #600, Pico Tie-in, LA County	Torrance Station, LA County	\$0.7972	\$1.0092	\$0.8769	10.0%
23		Line # 600, Venice Tie-in, LA County	Torrance Station, LA County	\$0.7972	\$1.0092	\$0.8769	10.0%

Exhibit MJW-3

Crimson SOCAL Pipeline Company

2021 COS Rate Filing

Proposed Rates per Route

Proposed Rates

Line	System	Receipt Location	Delivery Location	Effective Pipeline Rates in S/Bbl	Cost-Based Pipeline Rates in S/Bbl	Proposed Pipeline Rates in S/Bbl	Proposed Pipeline Rate Increase in %
1/							
24	Mohawk to Ventura TF	Mohawk Station, Ventura County	Ventura Tank Farm, Ventura County	\$0.2673	\$0.3384	\$0.2940	10.0%
25	Ventura Tank Farm to LA Refineries	Ventura Tank Farm, Ventura County	PBF Junction, Phillips 66 Carson Refinery, Lomita Manifold Area, LA County	\$1.0114	\$1.2803	\$1.1125	10.0%
26		Ventura Tank Farm, Ventura County	PBF Junction, LA County	\$1.0114	\$1.2803	\$1.1125	10.0%
27		Ventura Tank Farm, Ventura County	Marathon Los Angeles Refinery, LA County	\$1.1274	\$1.4272	\$1.2401	10.0%
28	Inglewood to LA Refineries	Inglewood Connection, LA County	Torrance Station, LA County	\$0.9599	\$1.2151	\$1.0559	10.0%
29	Lomita Area to Tesoro	Lomita Manifold Area, LA County	Andeavor Los Angeles Refinery, LA County	\$0.1369	\$0.1733	\$0.1506	10.0%
30	Ventura Gathering	Ventura, Ventura County	Ventura Tank Farm, Ventura County	\$0.3124	\$0.3955	\$0.3436	10.0%
31		Sespe, Ventura County	Ventura Tank Farm, Ventura County	\$0.4429	\$0.5607	\$0.4872	10.0%
32	THUMS System	Beta, LA County	Marathon Los Angeles Refinery, Phillips 66 Los Angeles Refinery, Valero Refinery, LA County	\$0.4815	\$0.6095	\$0.5297	10.0%
33	Inglewood to Crimson	Inglewood Area, Inglewood CA, LA County	Crimson Inglewood Connection, LA County	\$0.3543	\$0.4485	\$0.3897	10.0%
34	Northam Trunk	Huntington Beach Area, Orange County	World Oil Refinery South Gate, LA County	\$1.4334	\$1.8145	\$1.5767	10.0%
35		Huntington Beach Area, Orange County	Paramount Petroleum Refinery, LA County	\$1.4334	\$1.8145	\$1.5767	10.0%
36		Seal Beach Area, LA County	Paramount Petroleum Refinery, LA County	\$0.8214	\$1.0398	\$0.9035	10.0%
37	Northam Gathering	Huntington Beach Gathering, Orange County	Crimson Northam Trunkline System	\$0.4027	\$0.5098	\$0.4430	10.0%
38	Brea Canon to V10	Brea Canon Lease, LA County	Phillips 66 Carson Refinery, Lomita Manifold Area, Andeavor Los Angeles Refinery, LA County	\$0.5798	\$0.7340	\$0.6378	10.0%

1/ Based on Statement A, Line 10

Exhibit MJW-3
Crimson SOCAL Pipeline Company
2021 COS Rate Filing
Total Cost of Service

Statement A
Page 1 of 1

Line	Description	Source	Base Period	Test Period
1	Overall Return on Rate Base	Statement C, Line 7	\$4,854,803	\$4,999,791
2	Operating Expenses Excluding Depreciation	Statement B, Lines (20 - 13)	\$22,410,056	\$27,500,146
3	Depreciation Expense	Statement B, Line 13	\$2,139,295	\$2,243,377
4	Amortization of AFUDC	Statement F2, Lines (4 + 10)	\$37,252	\$42,985
5	Total Cost of Service before Non-Transportation Revenue Credit	Sum Lines 1 through 4	\$29,441,406	\$34,786,299
6	Non-Transportation Revenue Credit	WorkPaper 1, - Lines (42 + 43)	(\$4,093,885)	(\$4,093,885)
7	Total Cost of Service After Non-Transportation Revenue Credit	Lines (5 + 6)	\$25,347,520	\$30,692,414
8	Transportation Revenues	WorkPaper 1, Line 41	\$24,245,622	\$24,245,622
9	Revenue Excess (Deficiency)	Lines (8 - 7)	(\$1,101,898)	(\$6,446,791)
10	Revenue Excess (Deficiency) in Percent	Lines (9 / 8)	-4.5%	-26.6%

Exhibit MJW-3
Crimson SOCAL Pipeline Company
2021 COS Rate Filing
Operating Expenses

Statement B
Page 1 of 2

Line No.	Description	2020 Actual	Normalizing Adjustments			Base Period
			Adjustment 1	Adjustment 2	Adjustment 3	
		1/	2/	3/	4/	5/
	OPERATIONS AND MAINTENANCE					
1	300 Salaries and Wages	\$3,695,285	(\$350,000)			\$3,345,285
2	310 Materials and Supplies	\$283,712				\$283,712
3	320 Outside Services	\$6,460,453				\$6,460,453
4	330 Operating Fuel and Power	\$1,066,050				\$1,066,050
5	340 Oil Losses and Shortages	\$0				\$0
6	350 Rentals	\$2,943,662				\$2,943,662
7	390 Other Expenses	\$288,174			(\$10,271)	\$277,903
8	Total Operations Expense	\$14,737,335	(\$350,000)	\$0	(\$10,271)	\$14,377,064
	GENERAL					
9	500 Salaries and Wages	\$1,579,893	(\$70,112)			\$1,509,781
10	510 Materials and Supplies	\$42,565	\$0			\$42,565
11	520 Outside Services	\$1,420,147	\$0	(\$56,516)		\$1,363,631
12	530 Rentals	\$289,103	\$0			\$289,103
13	540 Depreciation and Amortization	\$2,139,295	\$0	\$0	\$0	\$2,139,295
14	550 Employee Benefits	\$976,013	\$0			\$976,013
15	560 Insurance	\$2,652,142	\$0			\$2,652,142
16	570 Casualty and Other Losses	\$0	\$0			\$0
17	580 Pipeline Taxes	\$892,957	\$0			\$892,957
18	590 Other Expenses	\$306,801	\$0			\$306,801
19	Total General Expense	\$10,298,915	(\$70,112)	(\$56,516)	\$0	\$10,172,287
20	Total Operating Expenses	\$25,036,250	(\$420,112)	(\$56,516)	(\$10,271)	\$24,549,351

Sources:

1/ FERC 300 to 590 from WP1, Lines 22 to 38, FERC 540 from WP1, Line 11

2/ To exclude non-recurring items from employee costs

3/ To exclude non-recurring items from outside service costs

4/ To exclude other non-recurring cost items

5/ Sum items 1/ to 4/

Exhibit MJW-3
Crimson SOCAL Pipeline Company
2021 COS Rate Filing
Operating Expenses

Statement B
Page 2 of 2

Line No.	Description	Test Period Adjustments							Test Period
		Adjustment 1	Adjustment 2	Adjustment 3	Adjustment 4	Adjustment 5	Adjustment 6	Adjustment 7	
		6/	7/	8/	9/	10/	11/	12/	13/
	OPERATIONS AND MAINTENANCE								
1	300 Salaries and Wages	\$167,264	\$0	\$0	\$0	\$0	\$0	\$0	\$3,512,549
2	310 Materials and Supplies	\$0	\$0	\$0	\$0	\$0	\$109	\$0	\$283,821
3	320 Outside Services	\$53	\$0	\$0	\$0	\$0	\$80,098	\$0	\$6,540,604
4	330 Operating Fuel and Power	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,066,050
5	340 Oil Losses and Shortages	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	350 Rentals	\$0	\$698,003	\$0	\$0	\$0	\$1,649	\$0	\$3,643,315
7	390 Other Expenses	\$0	\$0	\$0	\$0	\$0	\$715	\$0	\$278,619
8	Total Operations Expense	\$167,317	\$698,003	\$0	\$0	\$0	\$82,572	\$0	\$15,324,956
	GENERAL								
9	500 Salaries and Wages	\$75,489	\$0	\$0	\$0	\$0	\$1,483,012	\$0	\$3,068,283
10	510 Materials and Supplies	\$0	\$0	\$0	\$0	\$0	\$12,110	\$0	\$54,674
11	520 Outside Services	\$1,227	\$0	\$0	\$500,000	\$0	\$789,346	\$0	\$2,654,205
12	530 Rentals	\$0	\$0	\$0	\$0	\$0	\$5,343	\$0	\$294,446
13	540 Depreciation and Amortization	\$0	\$0	\$0	0	\$0	\$0	\$104,082	\$2,243,377
14	550 Employee Benefits	\$48,801	\$0	\$0	\$0	\$0	\$10,781	\$0	\$1,035,594
15	560 Insurance	\$0	\$0	\$345,570	\$0	\$0	\$9,468	\$0	\$3,007,180
16	570 Casualty and Other Losses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
17	580 Pipeline Taxes	\$3,638	\$0	\$0	\$0	\$0	\$35,903	\$0	\$932,498
18	590 Other Expenses	\$0	\$0	\$0	\$0	\$500,000	\$321,510	\$0	\$1,128,311
19	Total General Expense	\$129,155	\$0	\$345,570	\$500,000	\$500,000	\$2,667,474	\$104,082	\$14,418,567
20	Total Operating Expenses	\$296,472	\$698,003	\$345,570	\$500,000	\$500,000	\$2,750,046	\$104,082	\$29,743,523

Sources:

6/ To reflect 5% increase in S&W related costs
7/ To reflect increase in ROW lease costs
8/ To reflect 25% increase in insurance premium
9/ To account for audit/tax, rate filing, and litigation costs

10/ To reflect post-COVID travel costs
11/ To reflect Cr.mson corporate restructuring costs
14/ To account for 2021 property additions of \$3.67 MM
13/ Sum items 5/ to /12

Exhibit MJW-3
Crimson SOCAL Pipeline Company
2021 COS Rate Filing
Overall Return on Rate Base

Statement C
Page 1 of 1

Line	Description	Source	Base Period	Test Period
1	Average Original Cost Rate Base	Statement E, Line 9	\$42,759,295	\$44,036,299
2	Equity Ratio	WorkPaper 1, Line 20	60.00%	60.00%
3	Debt Ratio	1.0 - Line 2	40.00%	40.00%
4	Rate of Return on Equity	WorkPaper 1, Line 22	14.59%	14.59%
5	Cost of Debt	WorkPaper 1, Line 21	6.50%	6.50%
6	Weighted Cost of Capital	Lines ((2 * 4) + (3 * 5))	11.35%	11.35%
7	Overall Return on Rate Base	Lines (6 * 1)	\$4,854,803	\$4,999,791
8	Weighted Rate of Return on Equity	Lines (2 * 4)	8.75%	8.75%
9	Weighted Cost of Debt	Lines (3 * 5)	2.60%	2.60%
10	Return on Equity	Lines (1 * 8)	\$3,743,061	\$3,854,847
11	Interest Expense	Lines (1 * 9)	\$1,111,742	\$1,144,944

Exhibit MJW-3
Crimson SOCAL Pipeline Company
2021 COS Rate Filing
Rate Base

Statement E
Page 1 of 1

Line	Description	Source	2015	2016	2017	2018	2019	Base Period	Test Period
<u>Total Carrier Property in Service</u>									
1	Carrier Property in Service	WorkPaper 1, Line 8	\$52,247,447	\$57,805,972	\$59,401,678	\$60,915,882	\$66,859,336	\$69,836,829	\$73,509,921
2	Accumulated AFUDC	Statement F2, Lns (2 + 8)	\$487,240	\$803,875	\$887,953	\$981,455	\$1,111,249	\$1,269,063	\$1,477,581
3	Total Carrier Property in Service	Lines (1 + 2)	\$52,734,687	\$58,609,847	\$60,289,631	\$61,897,337	\$67,970,585	\$71,105,892	\$74,987,501
<u>Total Accumulated Depreciation</u>									
4	Accumulated Depreciation of Carrier Property	WorkPaper 1, Line 14	\$19,510,761	\$21,233,097	\$23,067,397	\$24,950,367	\$25,501,477	\$27,640,772	\$29,884,149
5	Accumulated Amortization of AFUDC	Statement F2, Lns (5 + 11)	\$80,503	\$100,709	\$127,186	\$156,442	\$189,193	\$226,445	\$269,430
6	Total Accumulated Depreciation	Lines (4 + 5)	\$19,591,264	\$21,333,806	\$23,194,583	\$25,106,809	\$25,690,670	\$27,867,217	\$30,153,579
7	Net Carrier Property In Service	Lines (3 - 6)	\$33,143,423	\$37,276,041	\$37,095,048	\$36,790,528	\$42,279,915	\$43,238,675	\$44,833,923
8	Working Capital	WorkPaper 1, Ln. 19	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	Original Cost Rate Base	Lines (7 + 8)	\$33,143,423	\$37,276,041	\$37,095,048	\$36,790,528	\$42,279,915	\$43,238,675	\$44,833,923
10	Average Original Cost Rate Base	Average Line 9		\$35,209,732	\$37,185,544	\$36,942,788	\$39,535,221	\$42,759,295	\$44,036,299

Exhibit MJW-3
Crimson SOCAL Pipeline Company
2021 COS Rate Filing
AFUDC

Statement F1
Page 1 of 1

Line	Description	Source	2015	2016	2017	2018	2019	Base Period	Test Period
1	Equity Ratio	WorkPaper 1, Line 20		60.00%	60.00%	60.00%	60.00%	60.00%	60.00%
2	Debt Ratio	1.0 - Line 1		40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
3	Rate of Return on Equity	WorkPaper 1, Line 22		14.65%	13.23%	16.25%	13.98%	14.59%	14.59%
4	Cost of Debt	WorkPaper 1, Line 21		6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
5	Depreciable Property in Service Additions	WorkPaper 1, Lines (5 - 1)		\$5,558,525	\$1,595,706	\$1,514,204	\$2,362,470	\$2,779,934	\$3,673,091
6	Equity AFUDC BOY	Prior Line 9		\$0	\$0	\$0	\$0	\$0	\$0
7	Equity AFUDC Additions	Lines ((1 * 5/2.0 + Prior 9) * 2)		\$244,374	\$63,334	\$73,817	\$99,082	\$121,675	\$160,767
8	Equity AFUDC Transfers to Rate Base	- Line 7		\$244,374	\$63,334	\$73,817	\$99,082	\$121,675	\$160,767
9	Equity AFUDC EOY	Lines (6 + 7 - 8)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10	Debt AFUDC BOY	Prior Line 13		\$0	\$0	\$0	\$0	\$0	\$0
11	Debt AFUDC Additions	Lines ((2 * 5 / 2.0 + Prior 13) * 4)		\$72,261	\$20,744	\$19,685	\$30,712	\$36,139	\$47,750
12	Debt AFUDC Transfers to Rate Base	- Line 11		\$72,261	\$20,744	\$19,685	\$30,712	\$36,139	\$47,750
13	Debt AFUDC EOY	Lines (10 + 11 - 12)	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Exhibit MJW-3
Crimson SOCAL Pipeline Company
2021 COS Rate Filing
Amortization of AFUDC

Statement F2
Page 1 of 1

Line	Description	Source	2015	2016	2017	2018	2019	Base Period	Test Period
1	Equity AFUDC Transfers to Rate Base	Statement F1, Line 8		\$244,374	\$63,334	\$73,817	\$99,082	\$121,675	\$160,767
2	Accumulated Equity AFUDC	Cumulative Line 1	\$359,645	\$604,019	\$667,353	\$741,170	\$840,252	\$961,927	\$1,122,695
3	Depreciation Rates	WorkPaper 1, Line 10		3.13%	3.13%	3.13%	3.13%	3.13%	3.13%
4	Amortization of Equity AFUDC	Lines ((Prior 2 + 1/2,0) * 3)		\$15,081	\$19,897	\$22,043	\$24,749	\$28,204	\$32,624
5	Accumulated Amortization of Equity AFUDC	Cumulative Line 4	\$59,086	\$74,167	\$94,064	\$116,108	\$140,857	\$169,061	\$201,685
6	Net Equity AFUDC	Line (2 - 5)	\$300,559	\$529,852	\$573,289	\$625,063	\$699,395	\$792,866	\$921,009
7	Debt AFUDC Transfers to Rate Base	Statement F1, Line 12		\$72,261	\$20,744	\$19,685	\$30,712	\$36,139	\$47,750
8	Accumulated Debt AFUDC	Cumulative Line 7	\$127,595	\$199,856	\$220,600	\$240,285	\$270,997	\$307,136	\$354,886
9	Depreciation Rates	WorkPaper 1, Line 10		3.13%	3.13%	3.13%	3.13%	3.13%	3.13%
10	Amortization of Debt AFUDC	Lines ((Prior 8 + 7/2,0) * 9)		\$5,125	\$6,580	\$7,213	\$8,002	\$9,048	\$10,361
11	Accumulated Amortization of Debt AFUDC	Cumulative Line 10	\$21,417	\$26,542	\$33,122	\$40,335	\$48,336	\$57,384	\$67,745
12	Net Debt AFUDC	Line (8 - 11)	\$106,178	\$173,314	\$187,478	\$199,950	\$222,661	\$249,752	\$287,142

Exhibit MJW-3
Crimson SOCAL Pipeline Company
2021 COS Rate Filing
Operating Revenues

Statement G
Page 1 of 1

No.	Description	Source	Test Period
1	Revenues Under Proposed Rates	Deliveries * Proposed Rates	\$26,670,327
2	Revenues Under Presently Effective Rates	Deliveries * Effective Rates	\$24,245,622
3	Revenues Under Maximum Ceiling Rates	Deliveries * Cost-Based Rates	\$30,692,414

Exhibit MJW-3
Crimson SOCAL Pipeline Company
2021 COS Rate Filing
Input Data

WorkPaper 1

Line	Description	Source	2015	2016	2017	2018	2019	Base Period	Test Period
Carrier Property in Service ("CPIS")									
1	Land Additions	Company Records		\$0	\$0	\$0	\$0	\$0	\$0
2	Land Retirements	Company Records		\$0	\$0	\$0	\$0	\$0	\$0
3	Land Adjustments and Transfers	Company Records		\$0	\$0	\$0	\$0	\$0	\$0
4	Land EOY	Sum Lns (1 to 3 + Prior 4) 1/	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	CPIS Additions	Company Records		\$5,558,525	\$1,595,706	\$1,514,204	\$2,362,470	\$2,779,934	\$3,673,091
6	CPIS Retirements	Company Records		\$0	\$0	\$0	(\$1,448,572)	\$0	\$0
7	CPIS Adjustments and Transfers	Company Records		\$0	\$0	\$0	\$5,029,556	\$197,559	\$0
8	CPIS EOY	Sum Lns (5 to 7 + Prior 8) 1/	\$52,247,447	\$57,805,972	\$59,401,678	\$60,915,882	\$66,859,336	\$69,836,829	\$73,509,921
9	Depreciable Carrier Property in Service EOY	Lines (8 - 4)	\$52,247,447	\$57,805,972	\$59,401,678	\$60,915,882	\$66,859,336	\$69,836,829	\$73,509,921
10	Depreciation Rates	2/	3.13%	3.13%	3.13%	3.13%	3.13%	3.13%	3.13%
11	Depreciation Expense	Average Line 9 * Line 10		\$1,722,336	\$1,834,300	\$1,882,970	\$1,999,682	\$2,139,295	\$2,243,377
12	Depreciation Retirements	Company Records		\$0	\$0	\$0	(\$1,448,572)	\$0	\$0
13	Depreciation Adjustments and Transfers	Company Records		\$0	\$0	\$0	\$0	\$0	\$0
14	Accumulated Depreciation EOY	Sum Lns (11 to 13 + Prior 14) 1/	\$19,510,761	\$21,233,097	\$23,067,397	\$24,950,367	\$25,501,477	\$27,640,772	\$29,884,149
15	Accumulated Equity AFUDC	1/	\$359,645						
16	Accumulated Amortization of Equity AFUDC	1/	\$59,086						
17	Accumulated Debt AFUDC	1/	\$127,595						
18	Accumulated Amortization of Debt AFUDC	1/	\$21,417						
19	Working Capital	Company Records	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Cost of Capital									
20	Equity Ratio	CPUC Decision 20-11-026, Issued 11.23.20, Section 7.3	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%
21	Cost of Debt	Company Records	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
22	Rate of Return on Equity	Proxy Group 3/	11.45%	14.65%	13.23%	16.25%	13.98%	14.59%	14.59%

1/ 2015 EOY from 2016 CPUC Decisions

2/ 2015 Depreciation Rate reflects 20-Year Remaining Life based on 2016 CPUC Decision; Depreciation Rate assumed constant for subsequent years

3/ ROE for Base Period and Test Period from WorkPaper 3

Exhibit MJW-3
Crimson SOCAL Pipeline Company
2021 COS Rate Filing
Input Data

WorkPaper 1

Line	Description	Source	Base Period	Test Period
Operating Expenses				
OPERATIONS AND MAINTENANCE				
22	300 Salaries and Wages	Statement B, Line 1	\$3,345,285	\$3,512,549
23	310 Materials and Supplies	Statement B, Line 2	\$283,712	\$283,821
24	320 Outside Services	Statement B, Line 3	\$6,460,453	\$6,540,604
25	330 Operating Fuel and Power	Statement B, Line 4	\$1,065,050	\$1,066,050
26	340 Oil Losses and Shortages	Statement B, Line 5	\$0	\$0
27	350 Rentals	Statement B, Line 6	\$2,943,662	\$3,643,315
28	390 Other Expenses	Statement B, Line 7	\$277,903	\$278,619
29	Total Operations Expense	Sum Lns (22 to 28)	\$14,377,064	\$15,324,956
GENERAL				
30	500 Salaries and Wages	Statement B, Line 9	\$1,503,781	\$3,068,283
31	510 Materials and Supplies	Statement B, Line 10	\$42,565	\$54,674
32	520 Outside Services	Statement B, Line 11	\$1,363,631	\$2,654,205
33	530 Rentals	Statement B, Line 12	\$283,103	\$294,446
34	550 Employee Benefits	Statement B, Line 14	\$975,013	\$1,035,594
35	560 Insurance	Statement B, Line 15	\$2,652,142	\$3,007,180
36	570 Casualty and Other Losses	Statement B, Line 16	\$0	\$0
37	580 Pipeline Taxes	Statement B, Line 17	\$892,957	\$932,498
38	590 Other Expenses	Statement B, Line 18	\$305,801	\$1,128,311
39	Total General Expense	Sum Lns (30 to 38)	\$8,032,992	\$12,175,190
40	Total Operating Expenses Excluding Depreciation	Line (29 + 39)	\$22,410,056	\$27,500,146
Revenues				
41	210 Transportation Revenues	WorkPaper 2, Line 39	\$24,245,622	\$24,245,622
42	230 Allowance Oil Revenue	WorkPaper 2, Line 40	\$3,817,260	\$3,817,260
43	260 Other Revenues	WorkPaper 2, Sum Lns (41 to 44)	\$275,626	\$276,626
Volumes				
44	Deliveries in Bbls	WorkPaper 2, Line 39	35,707,397	35,707,397

Exhibit MJW-3

Crimson SOCAL Pipeline Company

2021 COS Rate Filing

Volumes and Revenues for the Base and Test Period

WorkPaper 2

Line	System	Receipt Location	Delivery Location	Effective Tariff Rate	Transportation Volumes					Transportation Revenues Collected	Transportation Revenues @ Effective Rates Base Period	Transportation Revenues @ Effective Rates Test Period
					2020 Actual	Normalizing Adjustments	Base Period	Test Period Adjustments	Test Period			
1	East Crude System (Line 700) Gathering	Stewart Truck Rack, Orange County	Stewart Station, Orange County	\$0.3012	253,076	-	253,076	-	253,076	\$72,121	\$76,226	\$76,226
2		Butler Road Line, LA County	Norwalk Station, LA County	\$0.4429	1,180,307	-	1,180,307	-	1,180,307	\$495,049	\$522,758	\$522,758
3	East Crude System (Line 700) Trunk	Norwalk Station, LA County	Phillips 66 Carson Refinery, LA County	\$0.9035	1,764,185	-	1,764,185	-	1,764,185	\$1,503,007	\$1,593,941	\$1,593,941
4		Stewart Station, Orange County	Phillips 66 Carson Refinery, LA County	\$1.0452	1,429,713	-	1,429,713	-	1,429,713	\$1,414,983	\$1,494,336	\$1,494,336
5	Ventura/Santa Paula/Torrey Gathering	Santa Paula Truck Rack, Ventura County	Santa Paula Station, Ventura County	\$0.3012	15,979	-	15,979	-	15,979	\$4,421	\$4,813	\$4,813
6		Santa Paula Truck Rack, Ventura County	Torrey Station, Ventura County	\$0.3012	103,962	-	103,962	-	103,962	\$29,279	\$31,313	\$31,313
7		Mandalay Area (Line #830), Ventura County	Ventura Station, Ventura County	\$0.4429	89,279	-	89,279	-	89,279	\$35,944	\$39,542	\$39,542
8		Mandalay Area (Line #830), Ventura County	Torrey Station, Ventura County	\$0.4429	560,786	-	560,786	-	560,786	\$235,512	\$248,372	\$248,372
9		Saticoy Junction, Ventura County	Santa Paula Station, Ventura County	\$0.4429	3,702	-	3,702	-	3,702	\$1,491	\$1,640	\$1,640
10		Saticoy Junction, Ventura County	Torrey Station, Ventura County	\$0.4429	17,962	-	17,962	-	17,962	\$7,645	\$7,955	\$7,955
11		Sulphur Crest Area Gathering, Ventura County	Santa Paula Station, Ventura County	\$0.4429	183,783	-	183,783	-	183,783	\$77,322	\$81,398	\$81,398
12		Sulphur Crest Area Gathering, Ventura County	Torrey Station, Ventura County	\$0.4429	46,539	-	46,539	-	46,539	\$19,184	\$20,612	\$20,612
13		Torrey Area Gathering, Ventura County	Santa Paula Station, Ventura County	\$0.4429	55,463	-	55,463	-	55,463	\$22,329	\$24,564	\$24,564
14		Torrey Area Gathering, Ventura County	Torrey Station, Ventura County	\$0.4429	253,761	-	253,761	-	253,761	\$109,304	\$112,391	\$112,391

Crimson SOCAL Pipeline Company

2021 COS Rate Filing

Volumes and Revenues for the Base and Test Period

Line	System	Receipt Location	Delivery Location	Effective Tariff Rate	Transportation Volumes					Transportation Revenues Collected	Transportation Revenues @ Effective Rates Base Period	Transportation Revenues @ Effective Rates Test Period
					2020 Actual	Normalizing Adjustments	Base Period	Test Period Adjustments	Test Period			
15	Line 600 Trunk	Ventura Station, Ventura County	PBF Junction, LA County	\$1.1869	158,378	-	158,378	-	158,378	\$170,890	\$187,979	\$187,979
16		Ventura Station, Ventura County	Torrance Station, LA County	\$1.1869	1,407,173	-	1,407,173	-	1,407,173	\$1,571,197	\$1,670,174	\$1,670,174
17		San Paula Station, Ventura County	PBF Junction, LA County	\$1.1869	39,032	-	39,032	-	39,032	\$43,808	\$46,327	\$46,327
18		San Paula Station, Ventura County	Torrance Station, LA County	\$1.1869	553,710	-	553,710	-	553,710	\$619,105	\$657,199	\$657,199
19		Torrey Station, Ventura County	Torrance Station, LA County	\$1.1869	217,462	-	217,462	-	217,462	\$248,936	\$258,106	\$258,106
20		Torrey Station, Ventura County	PBF Junction, LA County	\$1.1869	244,929	-	244,929	-	244,929	\$273,646	\$290,706	\$290,706
21	West LA Gathering	Las Cienegas Line, LA County	Line #600, Venice Tie-in, LA County	\$0.4429	127,935	-	127,935	-	127,935	\$53,556	\$56,662	\$56,662
22	West LA Trunk	Line #600, Pico Tie-in, LA County	Torrance Station, LA County	\$0.7972	119,403	-	119,403	-	119,403	\$90,245	\$95,188	\$95,188
23		Line # 600, Venice Tie-in, LA County	Torrance Station, LA County	\$0.7972	148,462	-	148,462	-	148,462	\$110,226	\$118,354	\$118,354
24	Mohawk to Ventura TF	Mohawk Station, Ventura County	Ventura Tank Farm, Ventura County	\$0.2673	486,492	-	486,492	-	486,492	\$125,311	\$130,039	\$130,039
25	Ventura Tank Farm to LA Refineries	Ventura Tank Farm, Ventura County	PBF Junction, Phillips 66 Carson Refinery, Lomita Manifold Area, LA County	\$1.0114	799,598	-	799,598	-	799,598	\$773,328	\$808,713	\$808,713
26		Ventura Tank Farm, Ventura County	PBF Junction, LA County	\$1.0114	3,523,660	-	3,523,660	-	3,523,660	\$3,368,262	\$3,563,830	\$3,563,830
27		Ventura Tank Farm, Ventura County	Marathon Los Angeles Refinery, LA County	\$1.1274	31,173	-	31,173	-	31,173	\$32,370	\$35,144	\$35,144
28	Inglewood to LA Refineries	Inglewood Connection, LA County	Torrance Station, LA County	\$0.9599	2,136,149	-	2,136,149	-	2,136,149	\$1,940,154	\$2,050,490	\$2,050,490
29	Lomita Area to Tesoro	Lomita Manifold Area, LA County	Andeavor Los Angeles Refinery, LA County	\$0.1369	146,288	-	146,288	-	146,288	\$19,705	\$20,027	\$20,027

Exhibit MJW-3

WorkPaper 2

Crimson SOCAL Pipeline Company

2021 COS Rate Filing

Volumes and Revenues for the Base and Test Period

Line	System	Receipt Location	Delivery Location	Effective Tariff Rate	Transportation Volumes					Transportation Revenues Collected	Transportation Revenues @ Effective Rates Base Period	Transportation Revenues @ Effective Rates Test Period
					2020 Actual	Normalizing Adjustments	Base Period	Test Period Adjustments	Test Period			
30	Ventura Gathering	Ventura, Ventura County	Ventura Tank Farm, Ventura County	\$0.3124	3,928,540	-	3,928,540	-	3,928,540	\$1,160,658	\$1,227,276	\$1,227,276
31		Sespe, Ventura County	Ventura Tank Farm, Ventura County	\$0.4429	135,892	-	135,892	-	135,892	\$54,710	\$60,187	\$60,187
32	THUMS System	Beta, LA County	Marathon Los Angeles Refinery, Phillips 66 Los Angeles Refinery, Valero Refinery, LA County	\$0.4815	9,918,257	-	9,918,257	-	9,918,257	\$4,497,957	\$4,775,641	\$4,775,641
33	Inglewood to Crimson	Inglewood Area, Inglewood CA, LA County	Crimson Inglewood Connection, LA County	\$0.3543	2,140,482	-	2,140,482	-	2,140,482	\$717,619	\$758,373	\$758,373
34	Northam Trunk	Huntington Beach Area, Orange County	World Oil Refinery South Gate, LA County	\$1.4334	658,093	-	658,093	-	658,093	\$792,153	\$943,310	\$943,310
35		Huntington Beach Area, Orange County	Paramount Petroleum Refinery, LA County	\$1.4334	571,820	-	571,820	-	571,820	\$770,174	\$819,647	\$819,647
36		Seal Beach Area, LA County	Paramount Petroleum Refinery, LA County	\$0.8214	1,197,277	-	1,197,277	-	1,197,277	\$928,790	\$983,443	\$983,443
37	Northam Gathering	Huntington Beach Gathering, Orange County	Crimson Northam Trunkline System	\$0.4027	1,043,953	-	1,043,953	-	1,043,953	\$397,081	\$420,400	\$420,400
38	Brea Canon to V10	Brea Canon Lease, LA County	Phillips 66 Carson Refinery, Lomita Manifold Area, Andeavor Los Angeles Refinery, LA County	\$0.5798	14,743	-	14,743	-	14,743	\$7,771	\$8,548	\$8,548
39	Pipeline Transportation Total				35,707,397	-	35,707,397	-	35,707,397	\$22,795,244	\$24,245,622	\$24,245,622

40	Allowance Oil Revenue	\$3,817,260	\$3,817,260	\$3,817,260
41	CAL P.U.C. Fees (0.034% of Pipeline Transportation Revenues)	\$7,750.38	\$8,243.51	\$8,243.51
42	PUC Accounting Services	\$209,974	\$209,974	\$209,974
43	PUC Tank Gauging	\$13,800	\$13,800	\$13,800
44	PUC Water Penalty	\$44,608	\$44,608	\$44,608
45	Non-Transportation Revenues Total	\$4,093,392	\$4,093,885	\$4,093,885
46	Total Revenues	\$26,888,636	\$28,339,508	\$28,339,508

DCF Method**Market Data For The Six-Month Period Through Apr. 30, 2021****Crimson CPUC Proxy Group**

Ln.	Ticker	Company	6-Mo. Avg Price Nov.-Apr. 2021	Distribution	Distribution Yield	I/B/E/S Growth	GDP Growth Forecast	Wtd. Avg Growth	6-mo Avg. Yield x (1+1/2 IBES g)	Yield plus Growth Staff Exh. S-25 p.1
1	MMP	Magellan Midstream Partners, L.P.	43.25	4.11	9.51%	2.95%	2.07%	2.66%	9.63%	12.29%
2	MPLX	MPLX LP	23.72	2.75	11.60%	35.40%	2.07%	24.29%	13.01%	37.30%
3	EPD	Enterprise Products Partners, L.P.	21.24	1.80	8.48%	8.40%	2.07%	6.29%	8.74%	15.03%
4	SHLX	Shell Midstream	11.72	1.84	15.70%	10.02%	2.07%	7.37%	16.28%	23.65%
5	PSXP	Phillips 66 Partners LP	30.76	3.50	11.38%	3.03%	2.07%	2.71%	11.53%	14.24%
6	PAA	Plains All American Pipeline, L.P.	8.84	0.72	8.14%	-20.31%	2.07%	-12.85%	7.62%	-5.23%
7	ENB.TO	Enbridge	43.32	3.34	7.71%	6.30%	4.15%	5.58%	7.93%	13.51%
8	NS	NuStar Energy L.P.	16.06	1.60	9.96%	40.20%	2.07%	27.49%	11.33%	38.82%
9		Median								14.64%

CAPM Method**Market Through Apr. 30, 2021. Value Line Report Dated Feb. 26, 2021**

Ln.	Ticker	Company	Value Line Beta	Risk-free Rate	DCF S&P 500	Market Risk Premium	Beta x Risk Premium	CAPM Cost of Equity	Market Cap \$ (MM)	Size Premium	Size-Adjusted CAPM
10	MMP	Magellan Midstream Partners, L.P.	1.20	2.0%	11.23%	9.25%	11.10%	13.08%	9,300	0.71%	13.8%
11	MPLX	MPLX LP	1.10	2.0%	11.23%	9.25%	10.17%	12.15%	25,600	0.49%	12.6%
12	EPD	Enterprise Products Partners, L.P.	1.10	2.0%	11.23%	9.25%	10.17%	12.15%	47,600	-0.22%	11.9%
13	SHLX	Shell Midstream	1.05	2.0%	11.23%	9.25%	9.71%	11.69%	4,500	0.75%	12.4%
14	PSXP	Phillips 66 Partners LP	1.00	2.0%	11.23%	9.25%	9.25%	11.23%	5,900	0.75%	12.0%
15	PAA	Plains All American Pipeline, L.P.	1.55	2.0%	11.23%	9.25%	14.34%	16.31%	6,100	0.75%	17.1%
16	ENB.TO	Enbridge	0.90	2.0%	11.23%	9.25%	8.32%	10.30%	89,100	-0.22%	10.1%
17	NS	NuStar Energy L.P.	1.30	2.0%	11.23%	9.25%	12.02%	14.00%	1,900	0.78%	14.8%
18		Median									12.54%

ROE Nominal - Composite

Ln.	Method	ROE Nominal
19	DCF Method	14.64%
20	CAPM Method	12.54%
21	ROE Nominal - Composite	13.59%
22	Risk Adjustment	1.00%
23	ROE Nominal - Composite Risk Adjusted	14.59%