SCG-02-WP-A

Errata Workpapers (Redine) Supporting the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis T. Sera

(Technical – Project Execution and Management, Volume VII of VII; Public Version)

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I. LINE 85 SOUTH TIMP PROJECT

A. Background and Summary

Line 85 South was assessed from [redacted] in the City of Castaic to [redacted] in Santa Clarita. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to two sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $753,577.

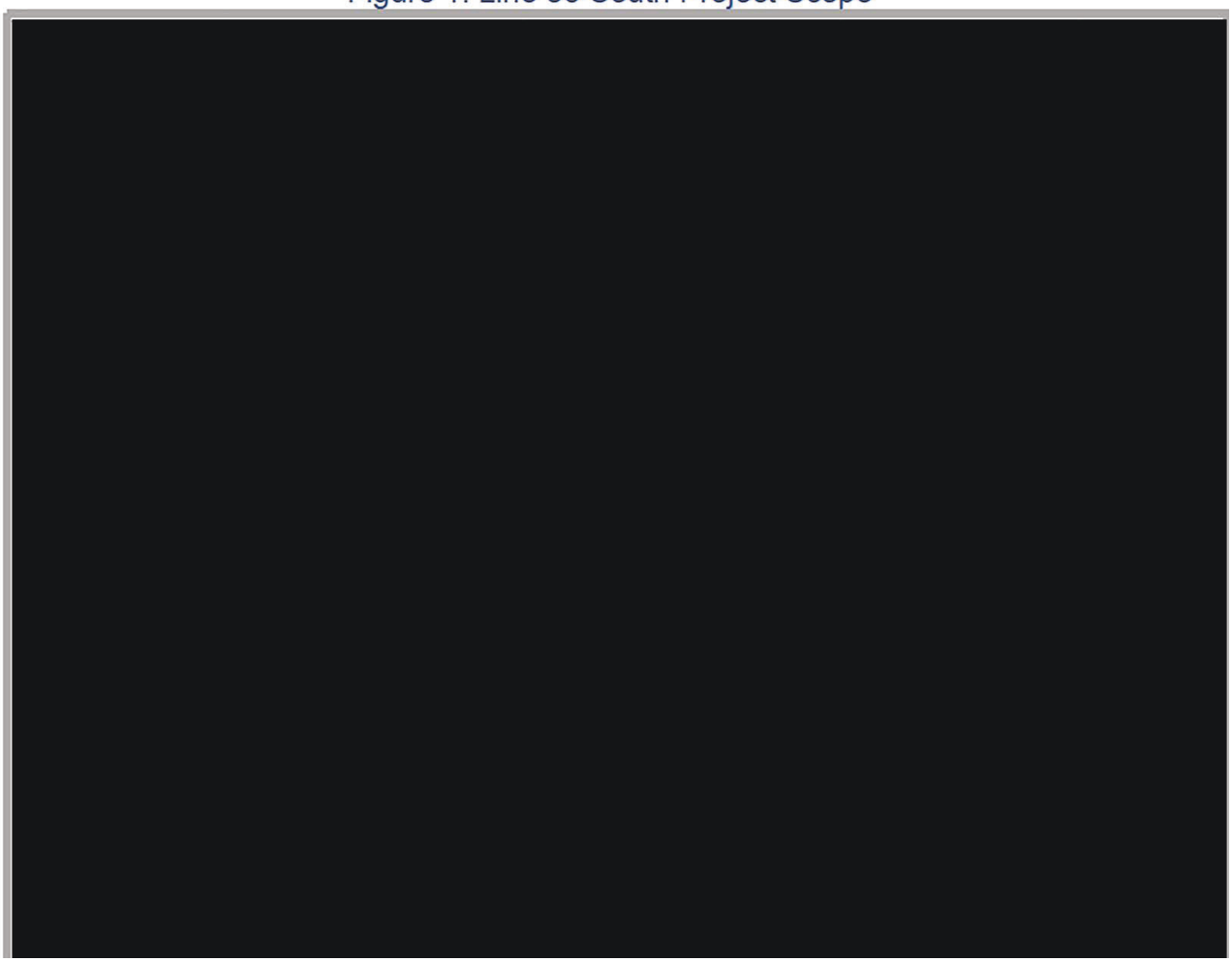
Table 1: General Project Information

Integrity Assessment Details			
Pipeline	85 South		
Assessment Type	[redacted]		
Location	Castaic, Santa Clarita		
Class	2, 3		
HCA Length	7.00 miles		
Project Length	7.55 miles		
Vintage	[redacted]		
Pipe Diameter	[redacted]		
MAOP	[redacted]		
SMYS	[redacted]		
HCA Threats	[redacted]		
Indirect Inspection Completion Date	[redacted]		
Direct Examination Completion Date	[redacted]		
Construction Start Date	[redacted]		
Construction Completion Date	[redacted]		
Assessment Due Date	[redacted]		
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	0	753,577	753,577

[redacted]

B. Maps and Images

Figure 1: Line 85 South Project Scope



II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Line 85 South by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained:
    a. Permits, traffic control drawings, and plans from the City of Santa Clarita and the county of Los Angeles.
    b. The Project Team also obtained an Encroachment Permit from Caltrans.
5. Environmental: No significant environmental constraints were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
85 South	7.00 miles	[redacted]	[redacted]
85 South	7.00 miles		
85 South	7.00 miles		

B. Direct Examination

Following the completion of the Indirect Inspection, two Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

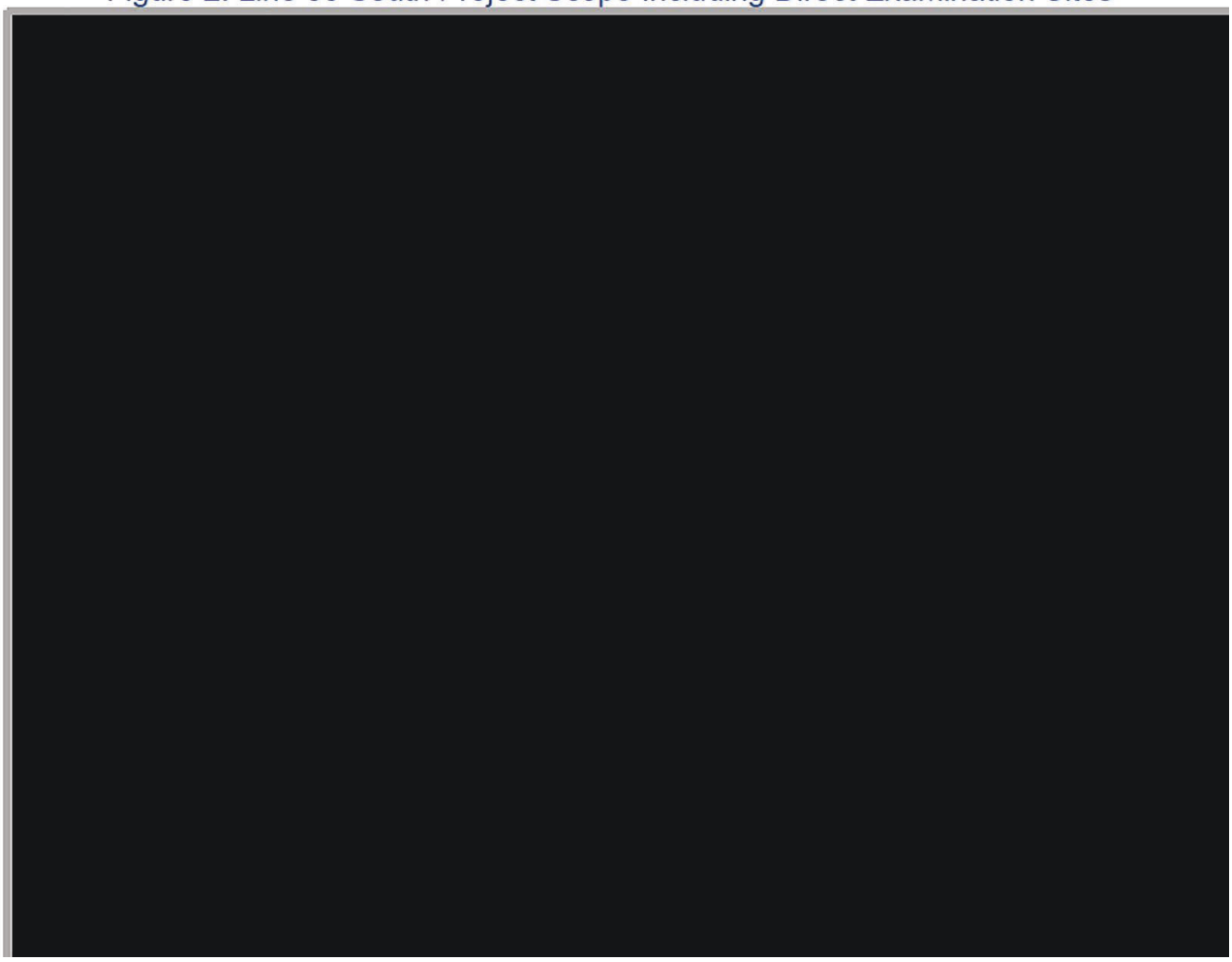
1. System Analysis: The Project Team completed an analysis of the pipeline system to evaluate project feasibility which concluded the validation examinations could be performed however, additional measures were necessary to shut in the pipeline without system and customer impacts.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings, and plans from the county of Los Angeles.
5. Environmental: No significant environmental constraints were identified.
6. SRC/IRC: N/A

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	85 South
Mitigation/Remediation Type	None
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	10 feet
Cost Category	O&M

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	85 South
Mitigation/Remediation Type	None
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	10.2 feet
Cost Category	O&M

Figure 2: Line 85 South Project Scope Including Direct Examination Sites



C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 7.00 miles on Line 85 South was completed on [redacted] The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	7.00 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Excavation Location

Figure 4: Direct Examination Site #1 – Pipe Inspection

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Actual Costs[2]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $753,577.

Table 6: Actual Direct Costs[3]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	81,973	81,973
Contract Costs	0	179,311	179,311
Material	0	443	443
Other Direct Charges	0	426,659	426,659
Total Direct Costs	0	688,386	688,386

Table 7: Actual Indirect Costs[4]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	65,191	65,191
AFUDC	0	0	0
Property Taxes	0	0	0
Total Indirect Costs	0	65,191	65,191

Table 8: Total Costs[5]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	753,577	753,577

[2] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[3] Values may not add to total due to rounding.
[4] Ibid.
[5] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Line 85 South TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $753,577.

End of Line 85 South TIMP Project Final Workpaper

I. LINE 324 TIMP PROJECT

A. Background and Summary

Line 324 was assessed from [redacted] in the City of Oxnard to [redacted] in the City of Somis. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to two sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $921,200.

Table 1: General Project Information

Integrity Assessment Details			
Pipeline	324		
Assessment Type	[redacted]		
Location	Oxnard, Somis		
Class	2, 3		
HCA Length	5.88 miles		
Project Length	7.51 miles		
Vintage	[redacted]		
Pipe Diameter			
MAOP			
SMYS			
HCA Threats			
Indirect Inspection Completion Date			
Direct Examination Completion Date			
Construction Start Date			
Construction Completion Date			
Assessment Due Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	0	921,200	921,200

[redacted]

B. Maps and Images

Figure 1: Line 324 Project Scope

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Line 324 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained:
    a. Permits, traffic control drawings and plans for the City of Oxnard, and the County of Ventura.
    b. The Project Team also obtained an Encroachment Permit from Caltrans.
5. Environmental: No significant environmental constraints were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
324	5.88 miles	[redacted]	[redacted]
324	5.88 miles		
324	5.88 miles		

B. Direct Examination

Following the completion of the Indirect Inspection, two Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project direct examination(s) are as follows:

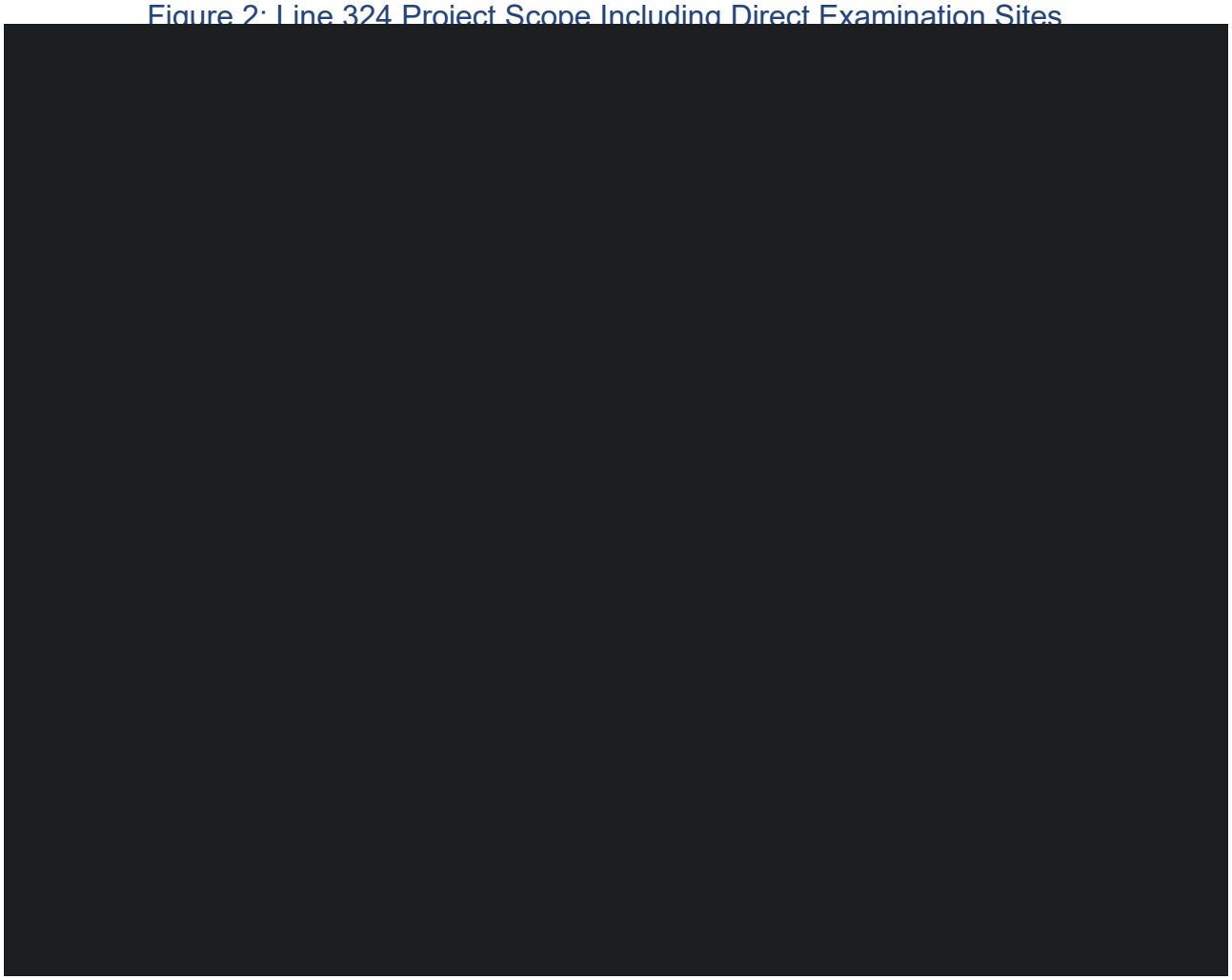
1. System Analysis: The Project Team completed an analysis of the pipeline system to evaluate project feasibility which concluded the validation examinations could be performed however, additional measures were necessary to shut in the pipeline without system and customer impacts.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified customer impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans for the City of Oxnard and county of Ventura.
5. Environmental: The Project Team obtained a standard Environmental Clearance for both examination sites. Both Direct Examination sites were found to have the potential to contribute construction materials to adjacent water conveyances and additional precaution practices were needed.
6. SRC/IRC: N/A

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	324
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	13 feet
Cost Category	O&M

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	324
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	14 feet
Cost Category	O&M

Figure 2: Line 324 Project Scope Including Direct Examination Sites



C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 5.88 miles on Line 324 was completed on [redacted]. The validation analysis of the Direct Examinations following the inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	5.88 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Coating Inspection

Figure 4: Direct Examination Site #1- Bare Pipe Inspection

Figure 5: Direct Examination Site #2 – Bare Pipe Inspection

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Actual Costs[3]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $921,200.

Table 6: Actual Direct Costs[4]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	105,416	105,416
Contract Costs	0	367,626	367,626
Material	0	7	7
Other Direct Charges	0	362,534	362,534
Total Direct Costs	0	835,582	835,582

Table 7: Actual Indirect Costs[5]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	85,617	85,617
AFUDC	0	0	0
Property Taxes	0	0	0
Total Indirect Costs	0	85,617	85,617

Table 8: Total Costs[6]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	921,200	921,200

[3] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[4] Values may not add to total due to rounding.
[5] Ibid.
[6] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Line 324 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $921,200.

End of Line 324 TIMP Project Final Workpaper

I. LINE 765-8.24-BO, LINE 765-8.24-BR, SUPPLY LINE 44-717 & SUPPLY LINE 44-717BR1 TIMP PROJECT

A. Background and Summary

Line 765-8.24-BO, Line 765-8.24-BR, Supply Line 44-717 & Supply Line 44-717BR1 were assessed in the City of Los Angeles. This Workpaper describes the activities associated with [redacted] made at one site for all four pipeline segments, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $1,250,221.

SoCalGas

Final Workpaper for Line 765-8.24-BO, Line 765-8.24-BR, Supply Line 44-717 & Supply Line 44-717BR1 TIMP Project

Table 1: General Project Information

Integrity Assessment Details			
Assessment Type	[redacted]		
Location	Los Angeles		
HCA Threats	[redacted]		
Construction Start Date			
Construction Completion Date			
Direct Examination Completion Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	0	1,250,221	1,250,221

Integrity Assessment Details Per Line	
Pipeline	765-8.24-BO
Class	[redacted]
HCA Length	65.58 feet
Project Length	65.58 feet
Vintage	[redacted]
Pipe Diameter	
MAOP	
SMYS	
Assessment Due Date	N/A[1]

[1] L765-8.24-BO is classified as transmission non-line pipe, therefore not required to be assessed. Per CFR 192.919 only line pipe segments require assessment. However, the line falls under Subpart O integrity management requirements because it is a transmission segment with an HCA and requires integrity management by means of preventative and mitigative measures such as inspection as specified in CFR 192.935.

SoCalGas

Final Workpaper for Line 765-8.24-BO, Line 765-8.24-BR, Supply Line 44-717 & Supply Line 44-717BR1 TIMP Project

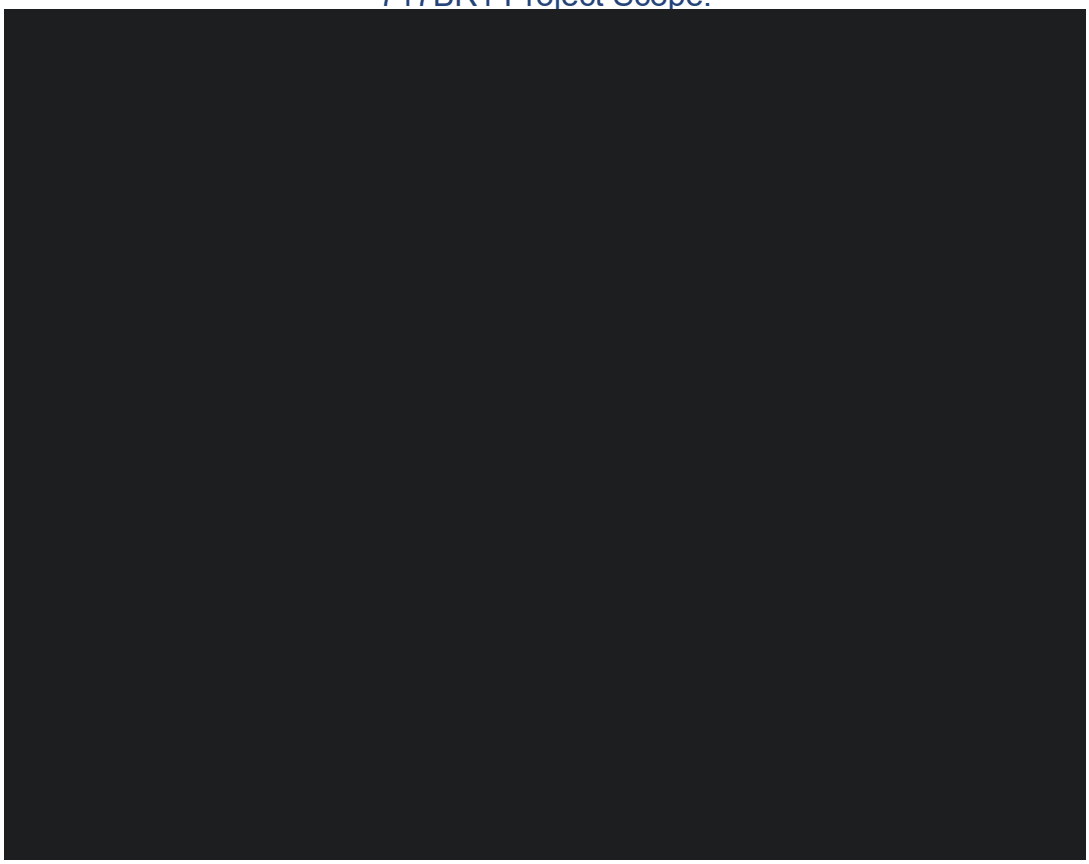
Integrity Assessment Details Per Line	
Pipeline	765-8.24-BR
Class	[redacted]
HCA Length	5.5 feet
Project Length	5.5 feet
Vintage	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Assessment Due Date	[redacted]

Integrity Assessment Details Per Line	
Pipeline	44-717
Class	[redacted]
HCA Length	2 feet
Project Length	2 feet
Vintage	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Assessment Due Date	[redacted]

Integrity Assessment Details Per Line	
Pipeline	44-717BR1
Class	[redacted]
HCA Length	8.07 feet
Project Length	8.07 feet
Vintage	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Assessment Due Date	[redacted]

B. Maps and Images

Figure 1: Line 765-8.24-BO, Line 765-8.24-BR, Supply Line 44-717 & Supply Line 44-717BR1 Project Scope.



II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), Transmission Integrity Management Program (TIMP) projects follow a four-step assessment process: Pre-Assessment, Inspection, Direct Examination, and Post-Assessment. However, TIMP projects assessed using [redacted] use excavations of the covered segment in lieu of Indirect Inspection. This Workpaper outlines construction activities during the Assessment process that occurred during the Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Direct Examination

SoCalGas initiated the planning process for the Line 765-8.24-BO, Line 765-8.24-BR, Supply Line 44-717 & Supply Line 44-717BR1 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project and confirm the appropriate assessment methods.

Following the completion of Inspection, one Direct Examination site was identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed an analysis of the pipeline system to evaluate project feasibility.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Los Angeles and Caltrans for the Direct Examination site.
5. Environmental: No significant environmental constraints were identified.

Table 2: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Construction Start Date	[redacted]
Construction Completion Date	
Cost Category	O&M

Direct Examination Details Per Line	
Examination ID	[redacted]
Pipeline	765-8.24-BO
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Replacement Length	N/A
Inspection Length	66-feet

Direct Examination Details Per Line	
Examination ID	[redacted]
Pipeline	765-8.24-BR
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Replacement Length	N/A
Inspection Length	0.75 feet

Direct Examination Details Per Line	
Examination ID	[redacted]
Pipeline	44-717
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Replacement Length	N/A
Inspection Length	4.5 feet

Direct Examination Details Per Line	
Examination ID	[redacted]
Pipeline	44-717BR1
Mitigation/Remediation Type	None
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Replacement Length	N/A
Inspection Length	5.17 feet

B. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 81.15 feet of Line 765-8.24-BO, Line 765-8.24-BR, Supply Line 44-717 & Supply Line 44-717BR1 was completed on [redacted]. The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 3: Project Summary

[redacted]	Total Length	81.15 feet
Direct Examination Completion Date	[redacted]	

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 4: Construction Timeline – Direct Examination

Construction Start Date	[redacted]
Construction Completion Date	

Figure 2: Direct Examination Site #1 – Coating Inspection

Figure 3: Direct Examination Site #1 – Pipeline Trench

Figure 4: Direct Examination Site #1 – Pipe Inspection

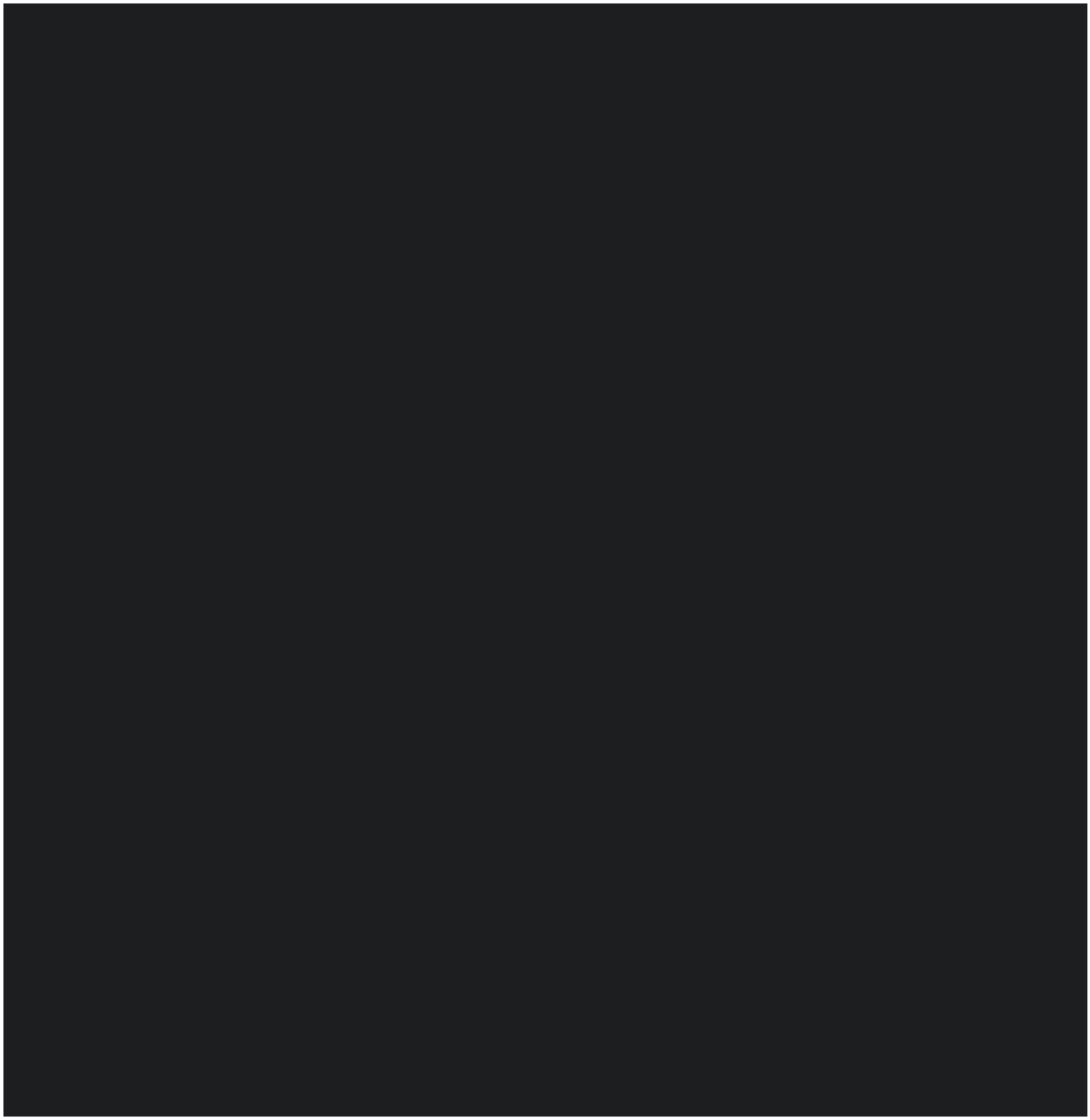
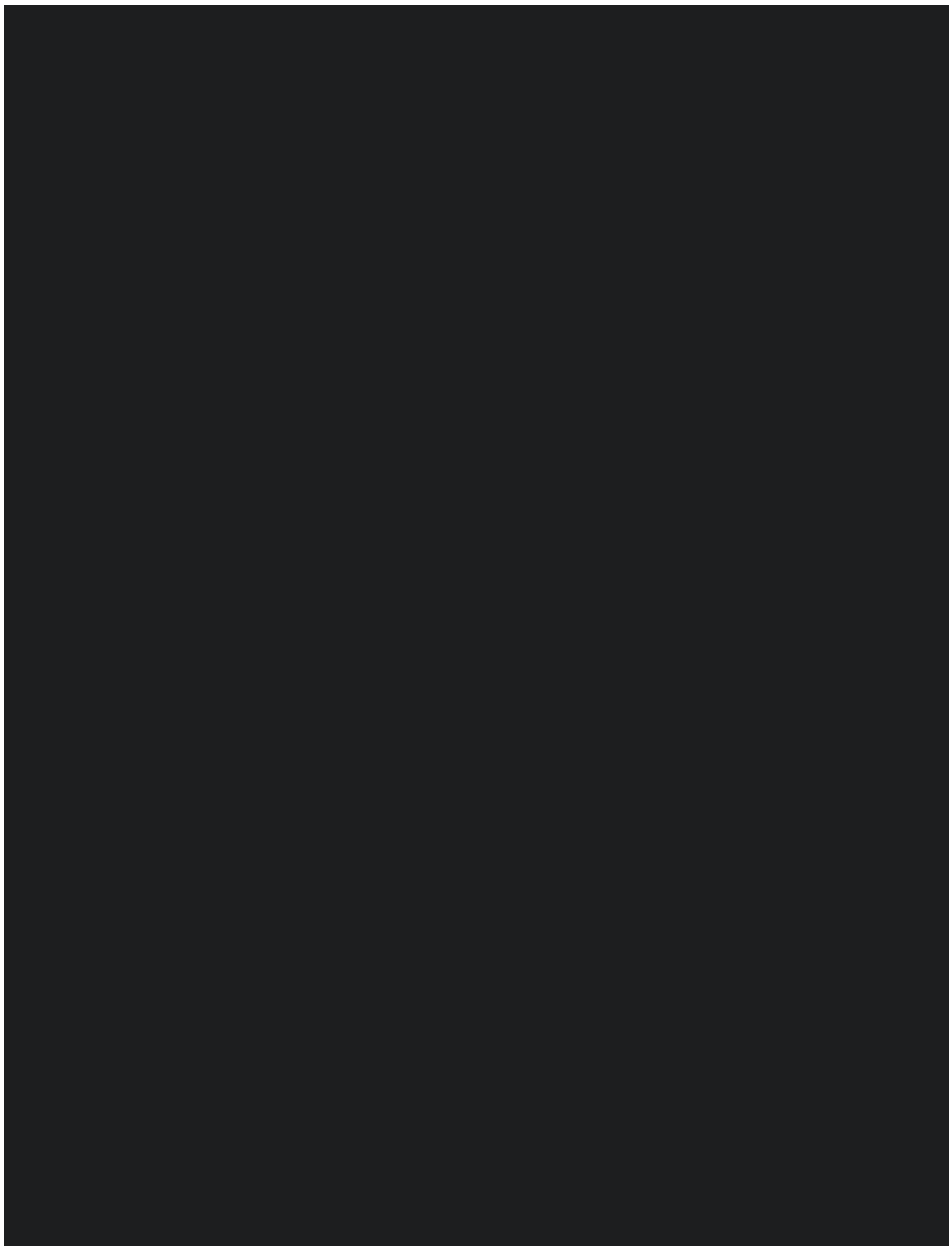


Figure 5: Direct Examination Site #1 – Direct Examination Location



C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Actual Costs[2]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $1,250,221.

Table 5: Actual Direct Costs[3]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	78,171	78,171
Contract Costs	0	868,164	868,164
Material	0	2,459	2,459
Other Direct Charges	0	204,825	204,825
Total Direct Costs	0	1,153,620	1,153,620

Table 6: Actual Indirect Costs[4]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	96,601	96,601
AFUDC	0	0	0
Property Taxes	0	0	0
Total Indirect Costs	0	96,601	96,601

Table 7: Total Costs[5]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	1,250,221	1,250,221

[2] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[3] Values may not add to total due to rounding.
[4] Ibid.
[5] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Line 765-8.24-BO, Line 765-8.24-BR, Supply Line 44-717 & Supply Line 44-717BR1 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $1,250,221.

End of Line 765-8.24-BO, Line 765-8.24-BR, Supply Line 44-717 & Supply Line 44-717BR1 TIMP Project Final Workpaper

I. LINE 1011 TIMP PROJECT

A. Background and Summary

Line 1011 was assessed from [redacted] in the City of Ventura. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to four sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $1,947,120.

Table 1: General Project Information

Integrity Assessment Details			
Pipeline	1011		
Assessment Type	[redacted]		
Location	Ventura		
Class	[redacted]		
HCA Length	2.10 miles		
Project Length	2.24 miles		
Vintage	[redacted]		
Pipe Diameter			
MAOP			
SMYS			
HCA Threats			
Indirect Inspection Completion Date			
Direct Examination Completion Date			
Construction Start Date			
Construction Completion Date			
Assessment Due Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	674,121	1,272,999	1,947,120

[redacted]

B. Maps and Images

Figure 1: Line 1011 Project Scope

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Line 1011 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Ventura for the Indirect Inspection.
5. Environmental: No significant environmental constraints were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
1011	2.10 miles	[redacted]	[redacted]
1011	2.10 miles		
1011	2.10 miles		

B. Direct Examination

Following the completion of the Indirect Inspection, four Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Ventura for two Direct Examination sites.
5. Land Use: The Project Team obtained Temporary Right of Entry agreements for two of the Direct Examination sites.
6. Environmental: No significant environmental constraints were identified.
7. SRC/IRC: There was an immediate condition originating from Direct Examination at Site #3. Rapid communication and procedures were followed for temporary pressure reduction. A cylindrical replacement was utilized to remediate condition on the pipeline.

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	1011
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	16 feet
Cost Category	O&M

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	1011
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	15.16 feet
Cost Category	O&M

Direct Examination Details	
Site	3
Examination ID	[redacted]
Pipeline	1011
Mitigation/Remediation Type	Replacement
Within HCA	Yes
SRC/IRC	Yes
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	12 feet
Inspection Length	18.2 feet
Cost Category	Capital

Direct Examination Details	
Site	4
Examination ID	[redacted]
Pipeline	1011
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	16 feet
Cost Category	O&M

Figure 2: Line 1011 Project Scope Including Direct Examination Sites

C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 2.10 miles on Line 1011 was completed on [redacted]. The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	2.10 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Location Overview

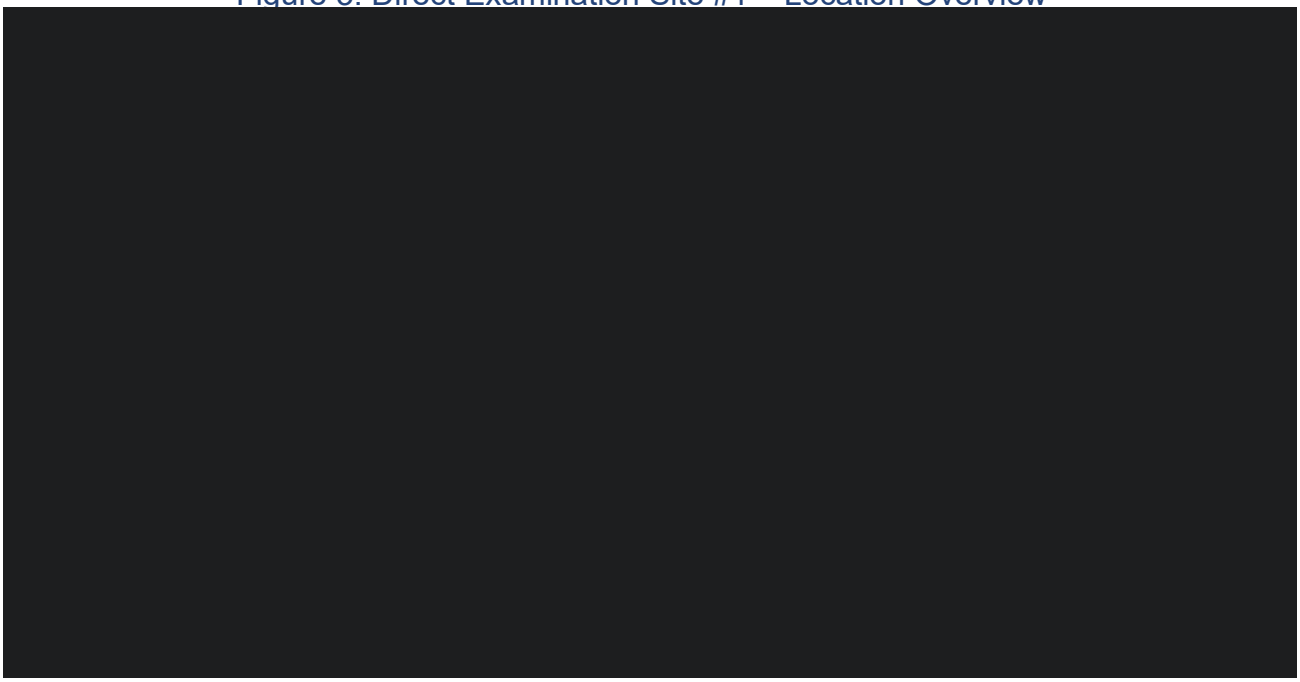


Figure 4: Direct Examination Site #1 – Pipe Inspection

Figure 5: Direct Examination Site #2 – Coating Inspection

Figure 6: Direct Examination Site #2 - Location Overview

Figure 7: Direct Examination Site #3 - Coating Inspection

Figure 8: Direct Examination Site #3 - Location Overview

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Actual Costs[3]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $1,947,120.

Table 6: Actual Direct Costs[4]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	49,086	171,583	220,670
Contract Costs	484,216	659,414	1,143,630
Material	262	12,444	12,706
Other Direct Charges	34,155	268,414	302,569
Total Direct Costs	567,720	1,111,855	1,679,575

Table 7: Actual Indirect Costs[5]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	105,585	161,144	266,729
AFUDC	646	0	646
Property Taxes	170	0	170
Total Indirect Costs	106,401	161,144	267,545

Table 8: Total Costs[6]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	674,121	1,272,999	1,947,120

[3] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[4] Values may not add to total due to rounding.
[5] Ibid.
[6] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Line 1011 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $1,947,120.

End of Line 1011 TIMP Project Final Workpaper

I. LINE 2001 BO7, LINE 2001 BO8, SUPPLY LINE 44-137 & SUPPLY LINE 44-137A TIMP PROJECT

A. Background and Summary

Line 2001 BO7, Line 2001 BO8, Supply Line 44-137 & Supply Line 44-137A was assessed in the City of El Monte. This Workpaper describes the activities associated with [redacted] made at one site for four pipeline segments, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $454,376.

Table 1: General Project Information

Integrity Assessment Details			
Assessment Type	[redacted]		
Location	El Monte		
HCA Threats	[redacted]		
Construction Start Date	[redacted]		
Construction Completion Date	[redacted]		
Direct Examination Completion Date	[redacted]		
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	0	454,376	454,376

Integrity Assessment Details Per Line	
Pipeline	2001 BO7
Class	[redacted]
HCA Length	28 feet
Project Length	28 feet
Vintage	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Assessment Due Date	[redacted]

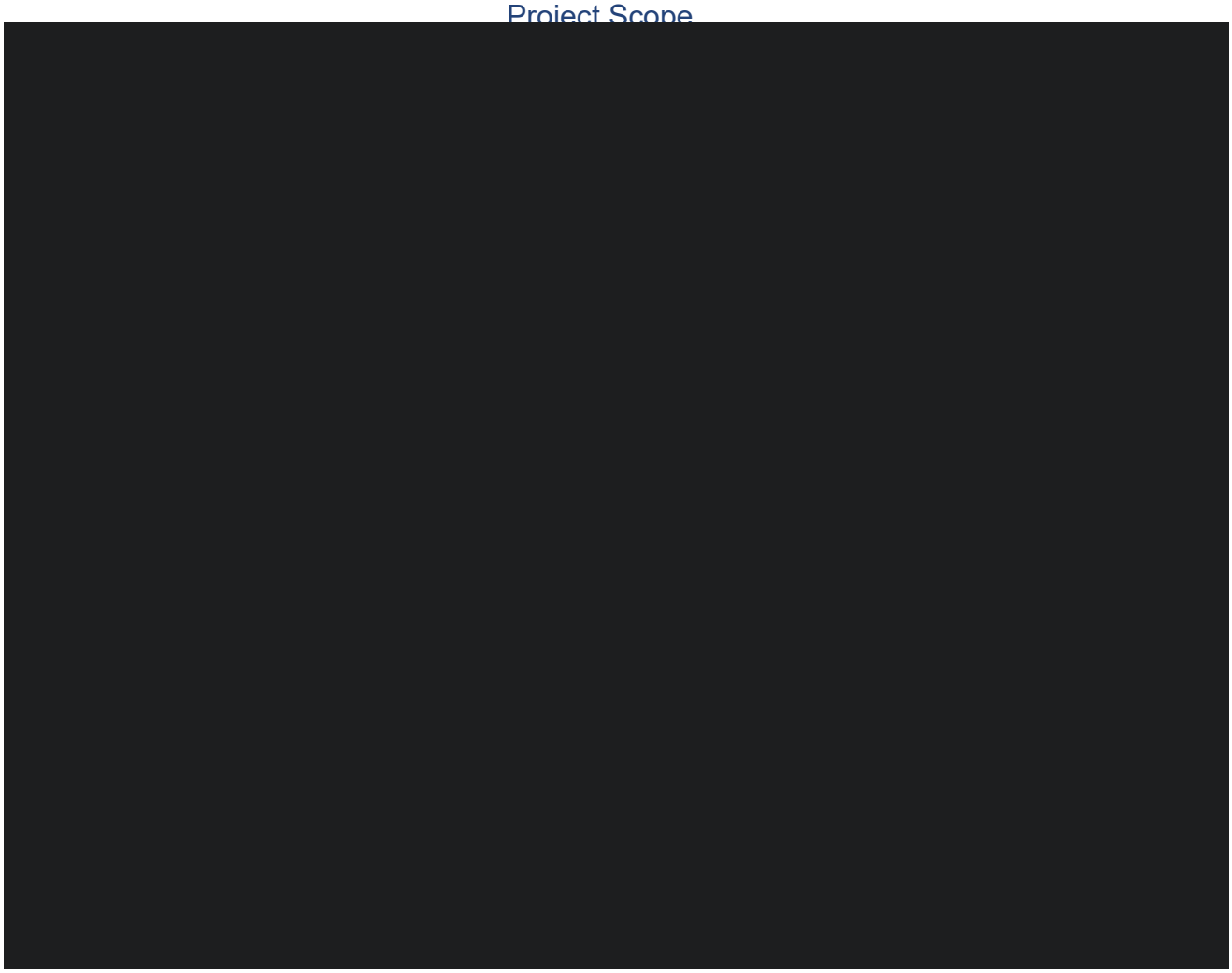
Integrity Assessment Details Per Line	
Pipeline	2001 West BO8
Class	[redacted]
HCA Length	10 feet
Project Length	10 feet
Vintage	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Assessment Due Date	[redacted]

Integrity Assessment Details Per Line	
Pipeline	44-137
Class	[redacted]
HCA Length	2 feet
Project Length	2 feet
Vintage	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Assessment Due Date	[redacted]

Integrity Assessment Details Per Line	
Pipeline	44-137A
Class	[redacted]
HCA Length	2.5 feet
Project Length	2.5 feet
Vintage	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Assessment Due Date	[redacted]

B. Maps and Images

Figure 1: Line 2001 BO7, Line 2001 BO8, Supply Line 44-137 & Supply Line 44-137A Project Scope



II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), Transmission Integrity Management Program (TIMP) projects follow a four-step assessment process: Pre-Assessment, Inspection, Direct Examination, and Post-Assessment. However, TIMP projects assessed using [redacted] use excavations of the covered segment in lieu of Indirect Inspection. This Workpaper outlines construction activities during the Assessment process that occurred during the Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Direct Examination

SoCalGas initiated the planning process for the Line 2001 BO7, Line 2001 BO8, Supply Line 44-137 & Supply Line 44-137A by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project and identify covered segments to be assessed using [redacted] locations. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed an analysis of the pipeline system to evaluate project feasibility.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of El Monte and South El Monte.
5. Environmental: The Project Team obtained a standard Environmental Clearance for the Direct Examination site. The Direct Examination site was found to have the potential to contribute construction materials to adjacent stormwater conveyances and stormwater best management practices were recommended.

Table 2: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Construction Start Date	[redacted]
Construction Completion Date	
Cost Category	O&M

Direct Examination Details Per Line	
Examination ID	[redacted]
Pipeline	2001 BO7
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Replacement Length	N/A
Inspection Length	20.83 Feet

Direct Examination Details Per Line	
Examination ID	[redacted]
Pipeline	2001 West BO8
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Replacement Length	N/A
Inspection Length	8 Feet

Direct Examination Details Per Line	
Examination ID	[redacted]
Pipeline	44-137
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Replacement Length	N/A
Inspection Length	1.33 Feet

Direct Examination Details Per Line	
Examination ID	[redacted]
Pipeline	44-137A
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Replacement Length	N/A
Inspection Length	1.33 Feet

B. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 40.5 feet on Line 2001 BO7, Line 2001 BO8, Supply Line 44-137 & Supply Line 44-137A was completed on [redacted]

Table 3: Project Summary

[redacted] Total Length	40.5 feet
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 4: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 2: Direct Examination Site #1 – Pipe Inspection Overview

Figure 3: Direct Examination Site #1 – Excavation of Pipeline

Figure 4: Direct Examination Site #1 – Bare Pipe Inspection

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Actual Costs[1]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $454,376.

Table 5: Actual Direct Costs[2]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	41,013	41,013
Contract Costs	0	294,330	294,330
Material	0	0	0
Other Direct Charges	0	78,822	78,822
Total Direct Costs	0	414,165	414,165

Table 6: Actual Indirect Costs[3]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	40,211	40,211
AFUDC	0	0	0
Property Taxes	0	0	0
Total Indirect Costs	0	40,211	40,211

Table 7: Total Costs[4]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	454,376	454,376

[1] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[2] Values may not add to total due to rounding.
[3] Ibid.
[4] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Line 2001 BO7, Line 2001 BO8, Supply Line 44-137 & Supply Line 44-137A TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $454,376.

End of Line 2001 BO7, Line 2001 BO8, Supply Line 44-137 & Supply Line 44-137A TIMP Project Final Workpaper

I. LINE 6908 TIMP PROJECT

A. Background and Summary

Line 6908 was assessed from [redacted] in the City of Riverside. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to two sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $494,041.

Table 1: General Project Information

Integrity Assessment Details			
Pipeline	6908		
Assessment Type	[redacted]		
Location	Riverside		
Class	[redacted]		
HCA Length	0.51 miles		
Project Length	0.51 miles		
Vintage	[redacted]		
Pipe Diameter			
MAOP			
SMYS			
HCA Threats			
Indirect Inspection Completion Date			
Direct Examination Completion Date			
Construction Start Date			
Construction Completion Date			
Assessment Due Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	303,111	190,930	494,041

B. Maps and Images

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Line 6908 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits and traffic control drawings and plans from the City of Riverside.
5. Environmental: No significant environmental constraints were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
6908	0.51 miles	[redacted]	[redacted]
6908	0.51 miles		
6908	0.51 miles		

B. Direct Examination

Following the completion of the Indirect Inspection, two Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility.
2. Customer Impacts: Line 6908 did not need to have pressure reduced for the [redacted] installation at Site #2, however the line needed to be isolated for welding at that location.
3. Community Impacts: No community impacts, the initial Direct Examination at Site #1 had to be relocated to avoid access issues for three businesses.
4. Permit Restrictions: The Project Team obtained permits and traffic control drawings and plans from the City of Riverside. The construction activity was limited to the hours between 9:00am and 3:00pm per permit instructions, however extended work hours were requested.
5. Environmental: The Project Team obtained a standard Environmental Clearance, no major impacts or issues were anticipated however an Industrial Hygienist had to come out to sample asphalt and concrete disturbed during construction as part of a new [redacted] requirement.
6. SRC/IRC: N/A
7. Other Identified Risks: It was determined that this line is suitable for conversion to inspection by a [redacted] tool. As part of the conversion, the second

Direct Examination site was used to install a [redacted] to allow access for the [redacted] tool to enter and inspect the pipeline.

a. Installed [redacted] fitting

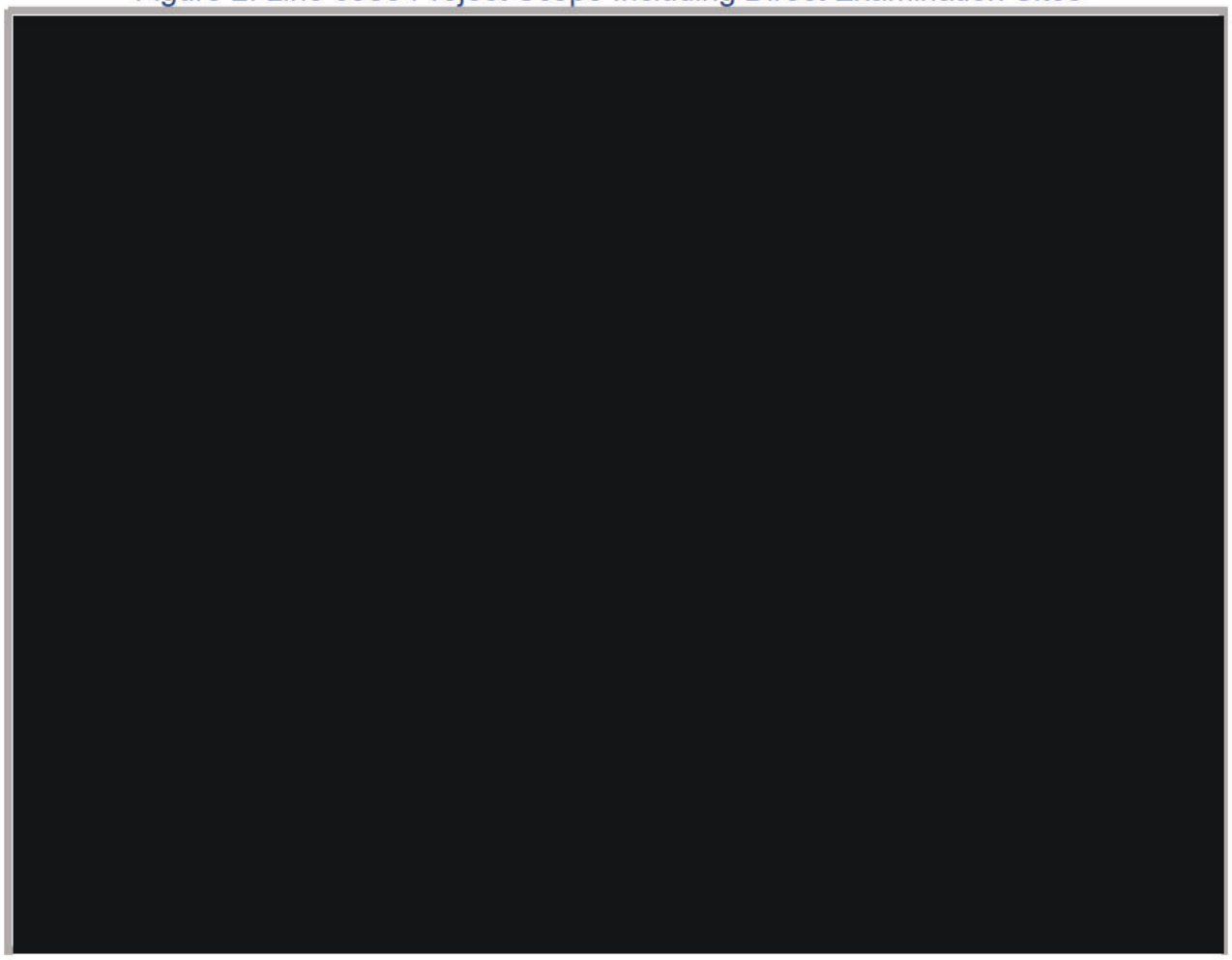
b. Incurred capital cost

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	6908
Mitigation/Remediation Type	None
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	18 feet
Cost Category	O&M

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	6908
Mitigation/Remediation Type	None
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	17 feet
Cost Category	O&M

Figure 2: Line 6908 Project Scope Including Direct Examination Sites



C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 0.51 miles on Line 6908 was completed on [redacted] The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	0.51 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Bare Pipe Inspection

Figure 4: Direct Examination Site #2 – Bare Pipe Inspection and [redacted] Proposed Location

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Cost Efficiency Actions

SoCalGas exercised due diligence in the design, planning, and construction activities for this Project to minimize or avoid costs when prudent to do so. As discussed above, the Project Team reviewed existing information, communicated with external stakeholders, and conducted a site evaluation to incorporate the site conditions in the Project plan and design. Specific examples of cost efficiency actions taken on this Project were:

1. Bundling of Projects: The Project Team determined that there was an opportunity to install a [redacted] fitting allowing the pipeline to be assessed by ILI and significantly reducing future project cost.

B. Actual Costs[1]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $494,041

Table 6: Actual Direct Costs[2]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	17,373	24,828	42,202
Contract Costs	205,471	91,892	297,364
Material	404	480	884
Other Direct Charges	31,858	50,186	82,043
Total Direct Costs	255,106	167,386	422,492

Table 7: Actual Indirect Costs[3]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	47,546	23,544	71,091
AFUDC	20	0	20
Property Taxes	437	0	437
Total Indirect Costs	48,004	23,544	71,548

Table 8: Total Costs[4]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	303,111	190,930	494,041

[1] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[2] Values may not add to total due to rounding.
[3] Ibid.
[4] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Line 6908 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $494,041.

End of Line 6908 TIMP Project Final Workpaper

I. LINE 7025 TIMP PROJECT

A. Background and Summary

Line 7025 was assessed from [redacted] in the City of Rosedale. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to two sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $458,030.

Table 1: General Project Information

Integrity Assessment Details			
Pipeline	7025		
Assessment Type	[redacted]		
Location	Rosedale		
Class	2, 3		
HCA Length	0.24 miles		
Project Length	2.60 miles		
Vintage	[redacted]		
Pipe Diameter			
MAOP			
SMYS			
HCA Threats			
Indirect Inspection Completion Date			
Direct Examination Completion Date			
Construction Start Date			
Construction Completion Date			
Assessment Due Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	0	458,030	458,030

[redacted]

B. Maps and Images

Figure 1: Line 7025 Project Scope

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Line 7025 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Rosedale, and Kern County.
5. Environmental: Due to the presence of the federal and state endangered Tipton Kangaroo Rat and the federal endangered Kern Mallow, the Project Team was required to limit their work areas to previously disturbed areas.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
7025	0.24 miles	[redacted]	[redacted]
7025	0.24 miles		
7025	0.24 miles		

B. Direct Examination

Following the completion of the Indirect Inspection, two Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed an analysis of the pipeline system to evaluate project feasibility.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Rosedale, and Kern County.
5. Land Use:
   a. Temporary Right of Entry (TRE) obtained from a local property owner in the City of Bakersfield at Site #1.
   b. TRE obtained from a local property owner in the City of Bakersfield at Site #2.
6. Environmental: The Project Team was required to conduct Nesting Birds and San Joaquin Kit Fox surveys prior to the start of construction.
7. SRC/IRC: N/A

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	7025
Mitigation/Remediation Type	None
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	O&M

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	7025
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	O&M

Figure 2: Line 7025 Project Scope Including Direct Examination Sites

C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 0.24 miles on Line 7025 was completed on [redacted]. The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	0.24 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Coating Inspection

Figure 4: Direct Examination Site #1 – Bare Pipe Inspection

Figure 5: Direct Examination Site #2 – Coating Inspection

Figure 6: Direct Examination Site #2 – Bare Pipe Inspection

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Actual Costs[2]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $458,030.

Table 6: Actual Direct Costs[3]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	68,876	68,876
Contract Costs	0	229,845	229,845
Material	0	5,157	5,157
Other Direct Charges	0	86,595	86,595
Total Direct Costs	0	390,473	390,473

Table 7: Actual Indirect Costs[4]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	67,557	67,557
AFUDC	0	0	0
Property Taxes	0	0	0
Total Indirect Costs	0	67,557	67,557

Table 8: Total Costs[5]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	458,030	458,030

[2] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[3] Values may not add to total due to rounding.
[4] Ibid.
[5] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Line 7025 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $458,030.

End of Line 7025 TIMP Project Final Workpaper

I. LINE 8032 TIMP PROJECT

A. Background and Summary

Line 8032 was assessed from [redacted] in the City of Santa Clarita. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to two sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $1,224,889.

Table 1: General Project Information

Integrity Assessment Details			
Pipeline	8032		
Assessment Type	[redacted]		
Location	Santa Clarita		
Class	[redacted]		
HCA Length	0.68 miles		
Project Length	0.70 miles		
Vintage	[redacted]		
Pipe Diameter	[redacted]		
MAOP	[redacted]		
SMYS	[redacted]		
HCA Threats	[redacted]		
Indirect Inspection Completion Date	[redacted]		
Direct Examination Completion Date	[redacted]		
Construction Start Date	[redacted]		
Construction Completion Date	[redacted]		
Assessment Due Date	[redacted]		
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	294,104	930,785	1,224,889

B. Maps and Images

Figure 1: Line 8032 Project Scope

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Line 8032 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained:
    a. Permits, traffic control drawings and plans from the City of Santa Clarita.
    b. An Encroachment Permit from Caltrans.
5. Environmental: No significant environmental constraints were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
8032	0.68 miles	[redacted]	[redacted]
8032	0.68 miles	[redacted]	[redacted]
8032	0.68 miles	[redacted]	[redacted]

B. Direct Examination

Following the completion of the Indirect Inspection, two Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed an analysis of the pipeline system to evaluate project feasibility.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: Site #2 was located within a private road and impacted access to approximately 20 residents/business during construction activities. Extensive community outreach was required for notifications, discussions of traffic impacts and right of way access.
4. Permit Restrictions: The Project Team obtained:
    a. Permits, traffic control drawings and plans from the City of Santa Clarita.
    b. An Encroachment Permit from Caltrans.
5. Land Use: The Project Team used a Right of Way to access a private roadway owned by a local Homeowner's Association.
6. Environmental: No significant environmental constraints were identified.
7. SRC/IRC: There was an Immediate Repair Condition discovered at Site #1. Rapid communications and procedures were followed. No additional pressure reduction was needed because at the time of the discovery the pipeline was operating at a reduced pressure. Soft pad, and a band repair was utilized to remediate the condition on the pipeline.

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	8032
Mitigation/Remediation Type	Soft Pad and Band
Within HCA	Yes
SRC/IRC	Yes
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	Capital

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	8032
Mitigation/Remediation Type	None
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	13 feet
Cost Category	O&M

Figure 2: Line 8032 Project Scope Including Direct Examination Sites

C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 0.68 miles on Line 8032 was completed on [redacted]. The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	0.68 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Bare Pipe Inspection

Figure 4: Direct Examination Site #1 – Excavation Location

Figure 5: Direct Examination Site #1 – Band Repair

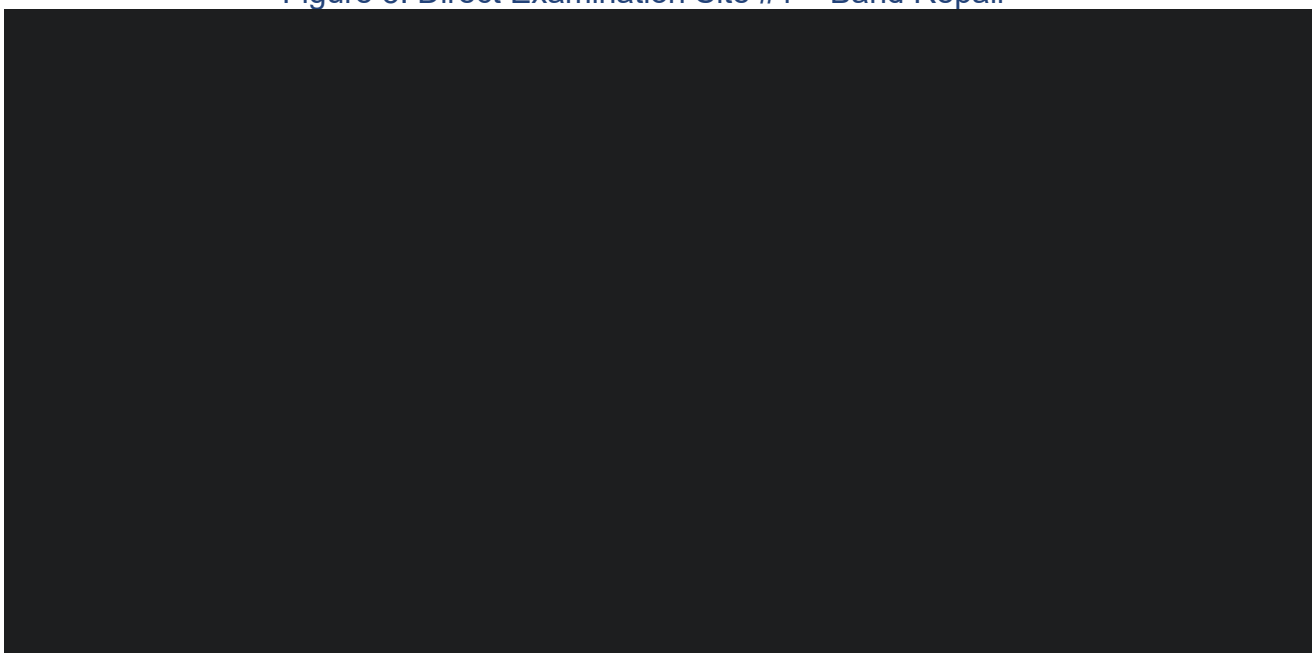


Figure 6: Direct Examination Site #2 – Coating Inspection

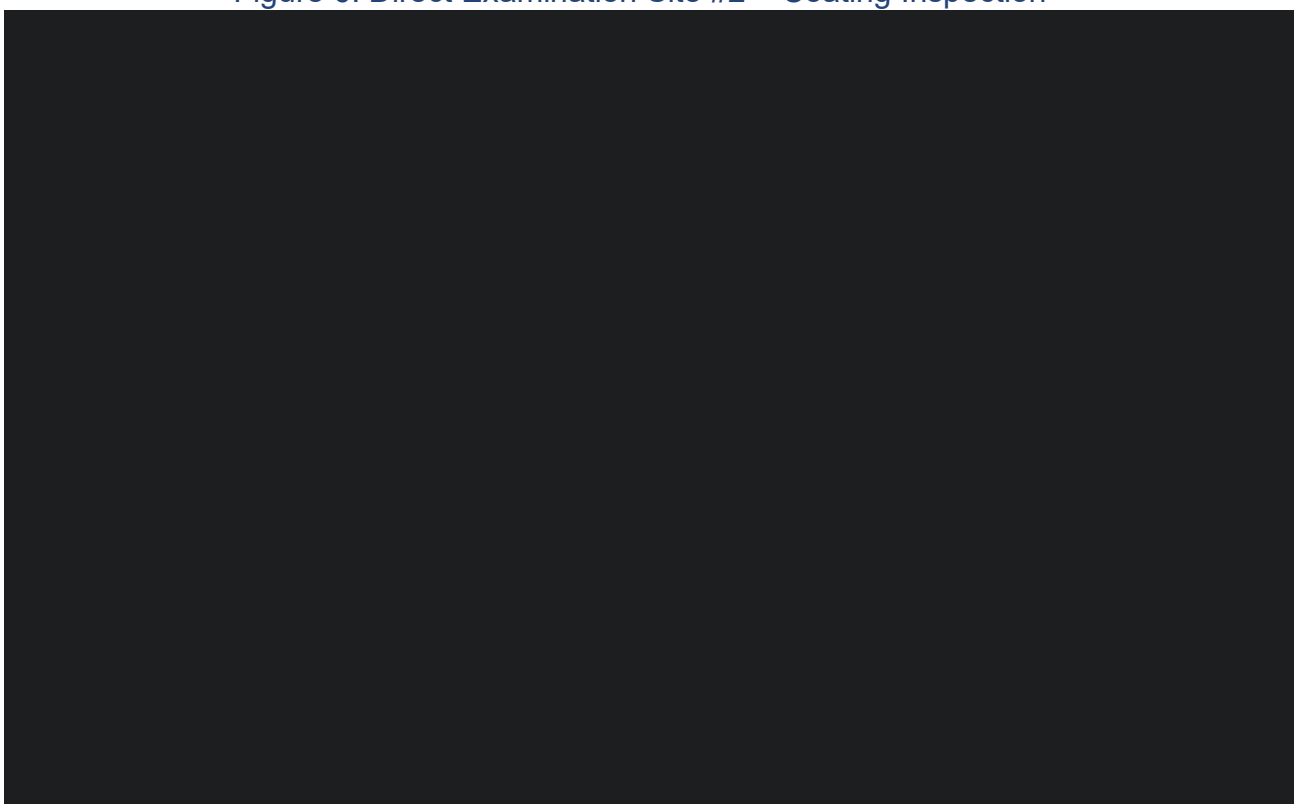
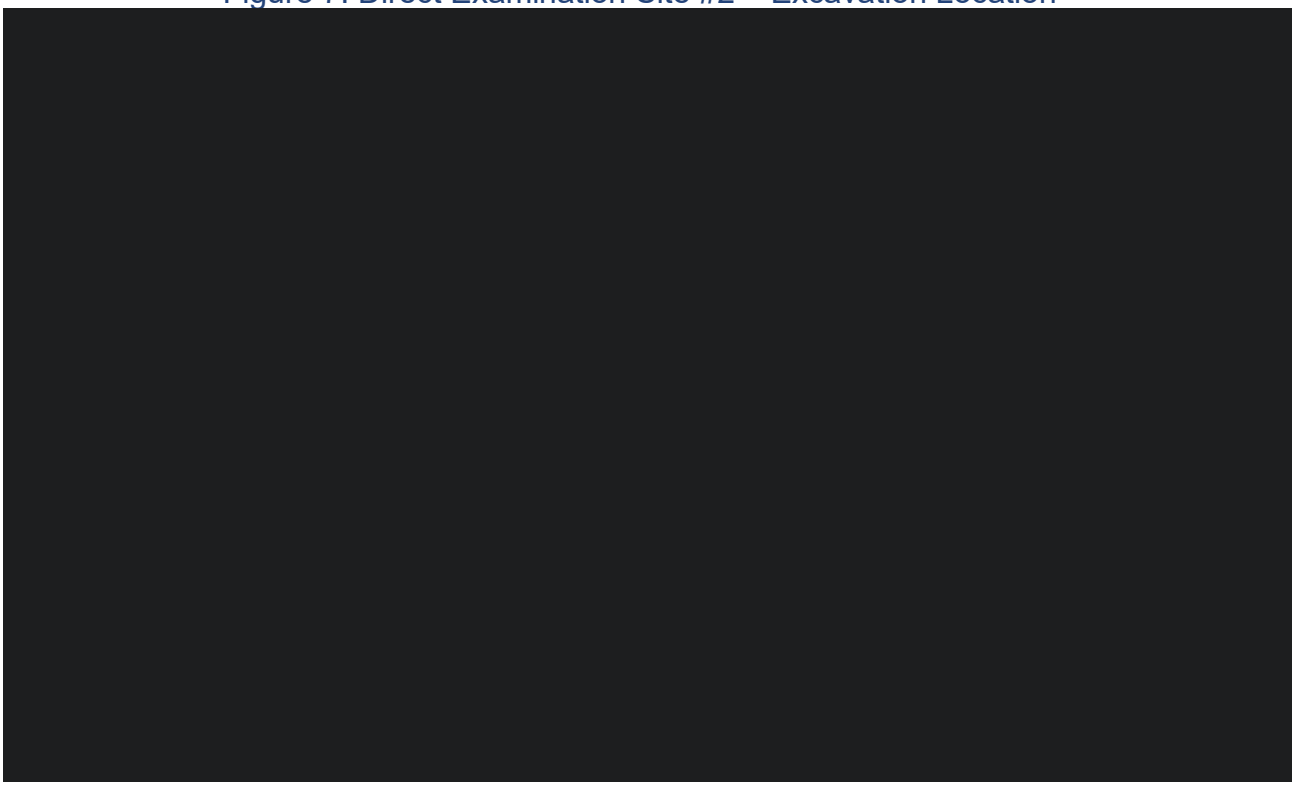


Figure 7: Direct Examination Site #2 – Excavation Location



C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Actual Costs[1]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $1,224,889.

Table 6: Actual Direct Costs[2]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	21,256	106,417	127,673
Contract Costs	110,557	635,983	746,540
Material	354	6,515	6,869
Other Direct Charges	114,507	53,874	168,380
Total Direct Costs	246,673	802,789	1,049,462

Table 7: Actual Indirect Costs[3]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	45,042	127,996	173,039
AFUDC	164	0	164
Property Taxes	2,225	0	2,225
Total Indirect Costs	47,431	127,996	175,427

Table 8: Total Costs[4]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	294,104	930,785	1,224,889

[1] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[2] Values may not add to total due to rounding.
[3] Ibid.
[4] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Line 8032 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $1,224,889.

End of Line 8032 TIMP Project Final Workpaper

I. LINE 8045 & LINE 8045 LT1 TIMP PROJECT

A. Background and Summary

Line 8045 & Line 8045 LT1 was assessed along [redacted] in the City of Glendale. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to five sites, [redacted] made at one site, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is ~~$1,941,419~~ $1,982,221.

Table 1: General Project Information

Integrity Assessment Details	
Pipeline	8045
Assessment Type	[redacted]
Location	Glendale
Class	[redacted]
HCA Mileage	0.35 miles
Project Mileage	0.35 miles
Vintage	[redacted]
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
HCA Threats	[redacted]
Indirect Inspection Completion Date	[redacted]
Direct Examination Completion Date	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Assessment Due Date	[redacted]

Integrity Assessment Details			
Piepeline	8045 LT1		
Assessment Type	[redacted]		
Location	Glendale		
HCA Threats	[redacted]		
Direct Examination Completion Date	[redacted]		
Assessment Due Date	[redacted]		
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	~~0~~ 0	~~1,941,419~~ 1,982,221	~~1,941,419~~ 1,982,221

B. Maps and Images

Figure 1: Line 8045 & Line 8045 LT1 Project Scope

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Line 8045 & Line 8045 LT1 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Glendale.
5. Environmental: No significant environmental constraints were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
8045	0.35 miles	[redacted]	[redacted]
8045	0.35 miles	[redacted]	[redacted]
8045	0.35 miles	[redacted]	[redacted]
8045	0.35 miles	[redacted]	[redacted]
8045	0.35 miles	[redacted]	[redacted]
8045	0.35 miles	[redacted]	[redacted]
8045	0.35 miles	[redacted]	[redacted]

B. Direct Examination

Following the completion of the Indirect Inspection, five Direct Examination sites at Line 8045, and one [redacted] at Line 8045 LT1 were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: The Project Team coordinated with the city and residents in the area to minimize traffic impacts from construction activities.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Glendale.
5. Environmental: No significant environmental constraints were identified.
6. SRC/IRC: N/A

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	8045
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	18.18 feet
Cost Category	O&M

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	8045
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	36.32 feet
Cost Category	O&M

Direct Examination Details	
Site	3
Examination ID	[redacted]
Pipeline	8045
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	17.85 feet
Cost Category	O&M

Direct Examination Details	
Site	4
Examination ID	[redacted]
Pipeline	8045
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	16 feet
Cost Category	O&M

Direct Examination Details	
Site	5
Examination ID	[redacted]
Pipeline	8045
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	O&M

Direct Examination Details	
Site	6
Examination ID	[redacted]
Pipeline	8045 LT1
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	4 feet
Cost Category	O&M

Figure 2: Line 8045 & Line 8045 LT1 Project Scope Including Direct Examination Sites

C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] and [redacted] of 0.35 miles on Line 8045 & Line 8045 LT1 was completed on [redacted] The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	0.35 miles
[redacted] Total Length	0.35 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]
Construction Completion Date	[redacted]

Figure 3: Direct Examination Site #2 – Coating Inspection

Figure 4: Direct Examination Site #3 – Excavation of Pipeline

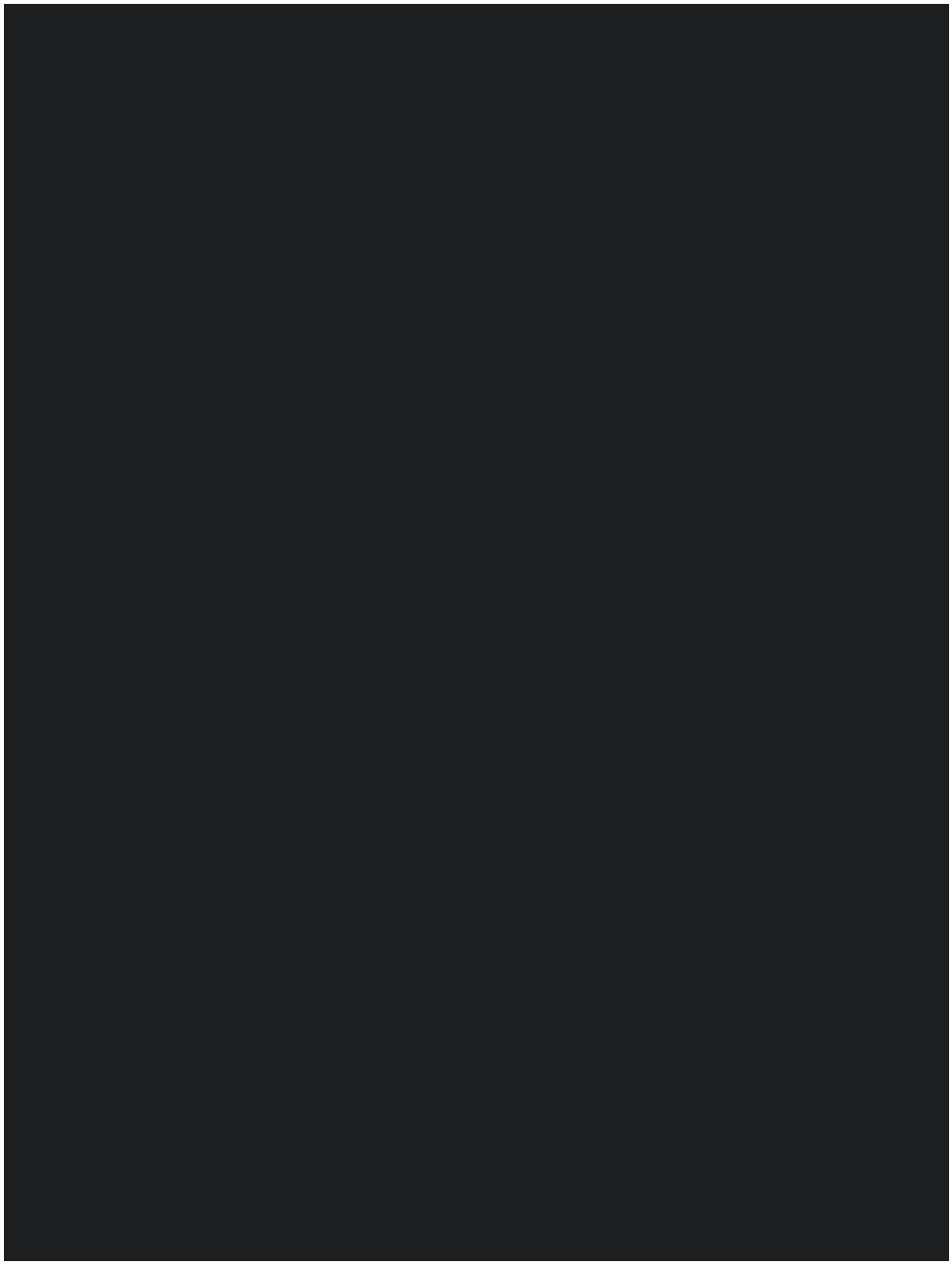


Figure 5: Direct Examination Site #1 – Site Location

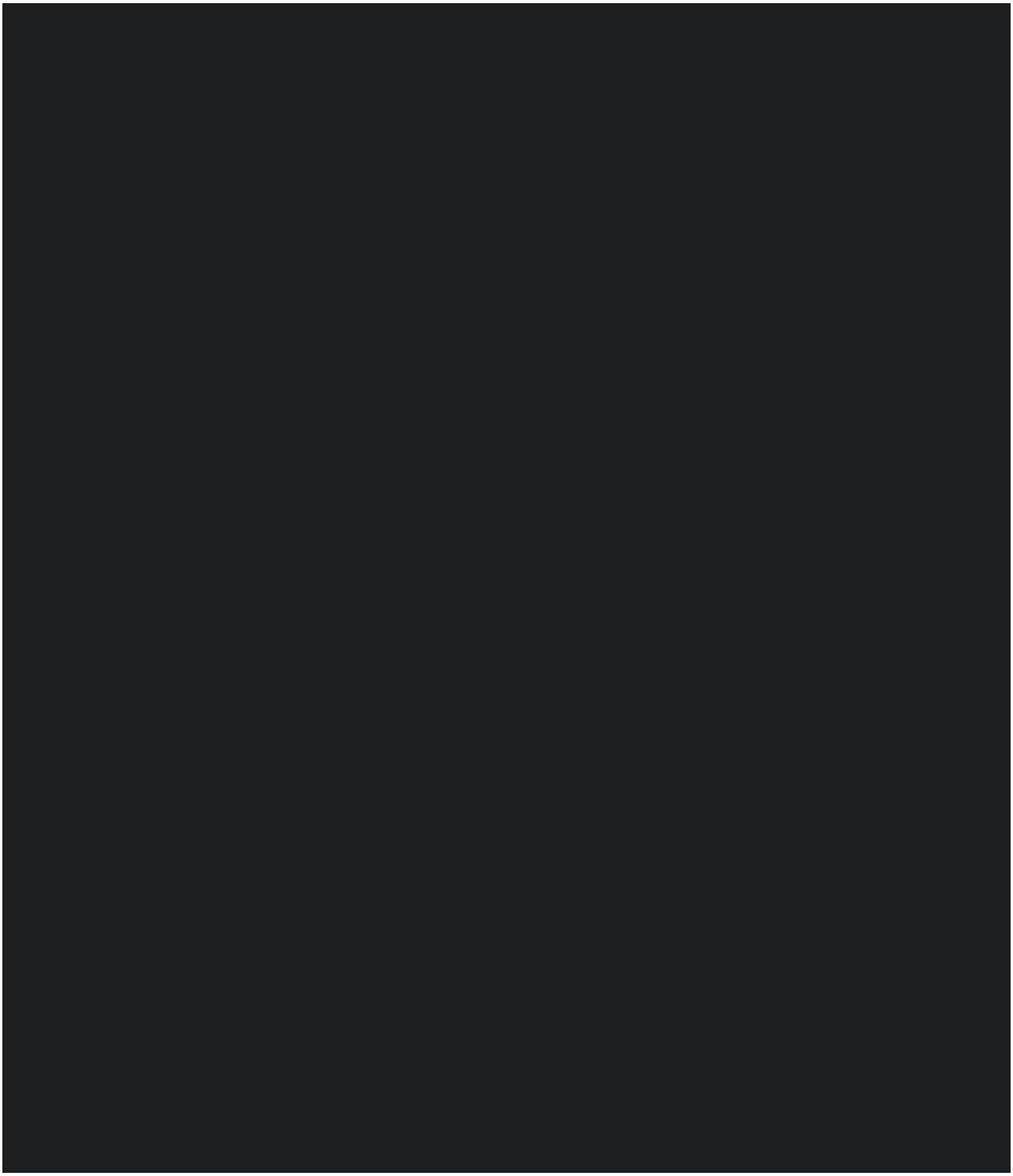
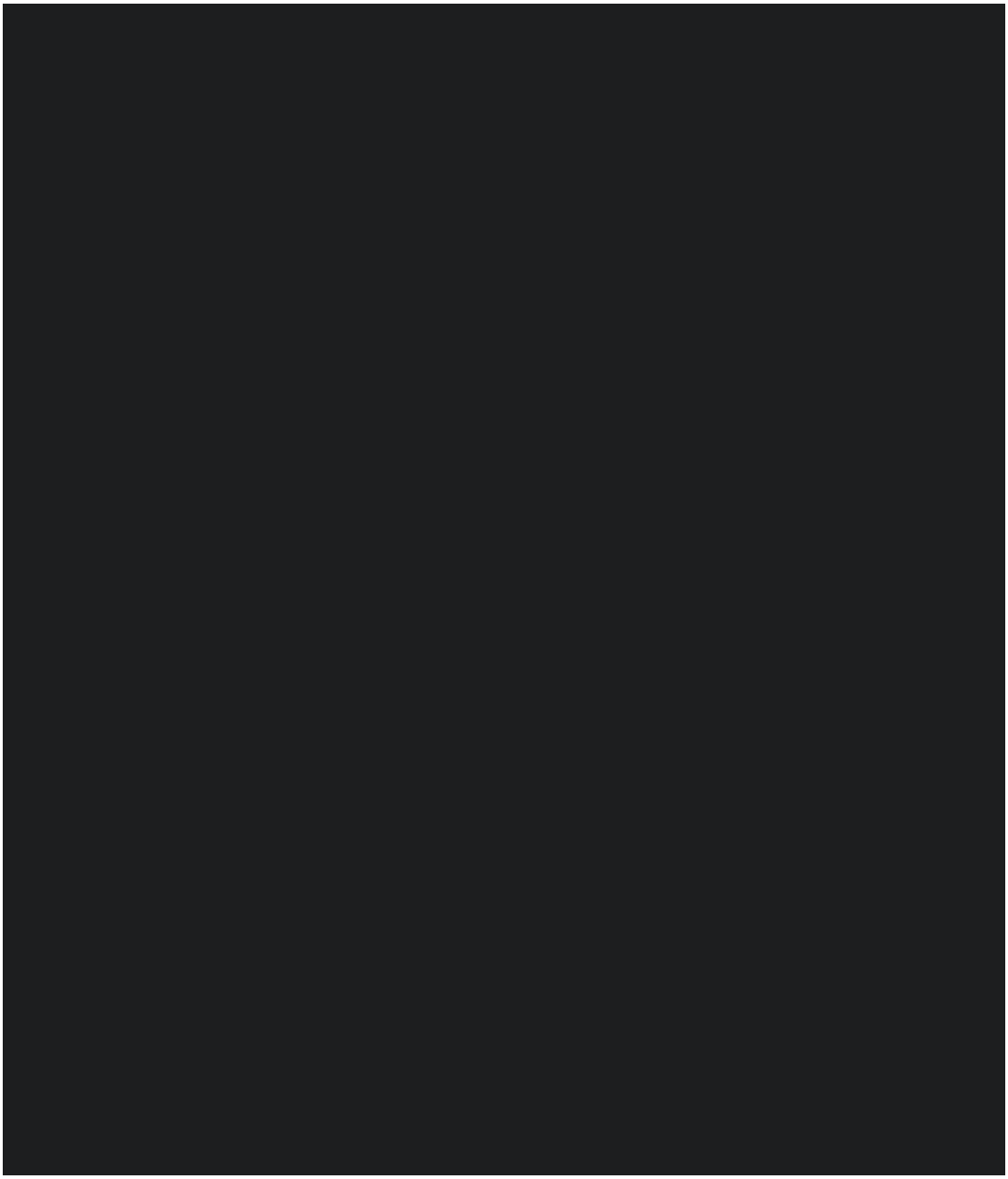


Figure 6: Direct Examination Site #6 – Bare Pipeline



C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Cost Efficiency Actions

SoCalGas exercised due diligence in the design, planning, and construction activities for this Project to minimize or avoid costs when prudent to do so. As discussed above, the Project Team reviewed existing information, communicated with external stakeholders, and conducted a site evaluation to incorporate the site conditions in the Project plan and design. Specific examples of cost efficiency actions taken on this Project were:

1. Construction Execution: Due to the close proximity of two of the Direct Examinations Sites, the construction team completed work to both Sites in one excavation.

B. Actual Costs[1]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is ~~$1,941,419~~ $1,982,221.

Table 6: Actual Direct Costs[2]

~~Direct Costs ($)~~	~~Capital Costs~~	~~O&M Costs~~	~~Total Actual Costs~~
~~Company Labor~~	~~0~~	~~106,938~~	~~106,938~~
~~Contract Costs~~	~~0~~	~~1,303,355~~	~~1,303,355~~
~~Material~~	~~0~~	~~161,659~~	~~161,659~~
~~Other Direct Charges~~	~~0~~	~~141,286~~	~~141,286~~
~~**Total Direct Cost**~~	~~0~~	~~1,713,239~~	~~1,713,239~~

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	127,529	127,529
Contract Costs	0	1,303,355	1,303,355
Material	0	161,709	161,709
Other Direct Charges	0	146,362	146,362
Total Direct Cost	0	1,738,956	1,738,956

Table 7: Actual Indirect Costs[3]

~~Indirect Costs ($)~~	~~Capital Costs~~	~~O&M Costs~~	~~Total Actual Costs~~
~~Overheads~~	~~0~~	~~228,180~~	~~228,180~~
~~AFUDC~~	~~0~~	~~0~~	~~0~~
~~Property Taxes~~	~~0~~	~~0~~	~~0~~
~~**Total Indirect Costs**~~	~~0~~	~~228,180~~	~~228,180~~

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	243,265	243,265
AFUDC	0	0	0

[1] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[2] Values may not add to total due to rounding.
[3] Ibid.

Property Taxes	0	0	0
Total Indirect Costs	0	243,265	243,265

Table 8: Total Costs[4]

~~Total Costs ($)~~	~~Capital Costs~~	~~O&M Costs~~	~~Total Actual Costs~~
~~**Total Loaded Costs**~~	~~0~~	~~1,941,419~~	~~1,941,419~~

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	1,982,221	1,982,221

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Line 8045 & Line 8045 LT1 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is ~~$1,941,419~~ $1,982,221.

End of Line 8045 & Line 8045 LT1 TIMP Project Final Workpaper

[4] Ibid.

I. SUPPLY LINE 30-72 TIMP PROJECT

A. Background and Summary

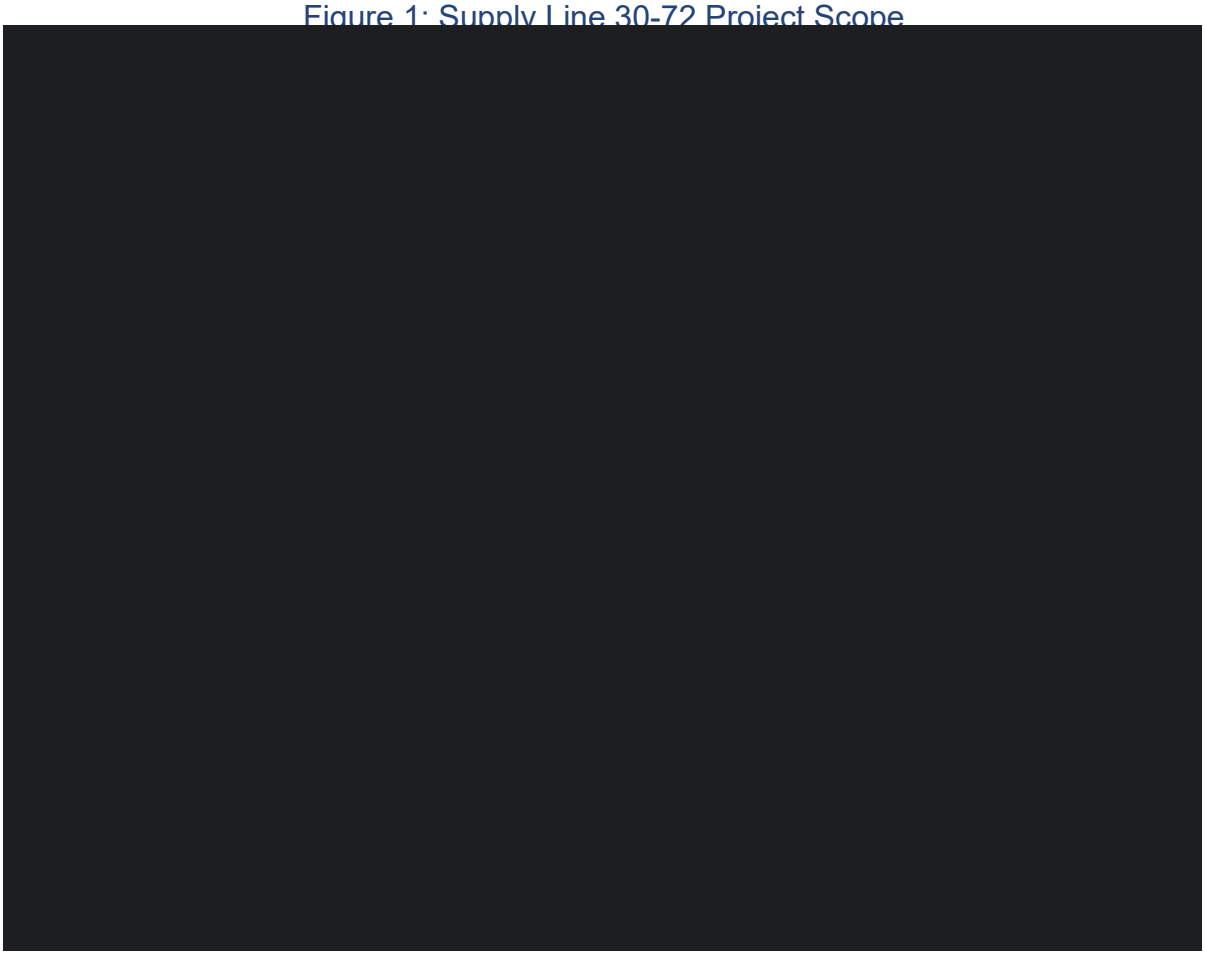
Supply Line 30-72 was assessed from [redacted] in the City of Los Angeles. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to two sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $303,505.

Table 1: General Project Information

Integrity Assessment Details			
Pipeline	30-72		
Assessment Type	[redacted]		
Location	Los Angeles		
Class	[redacted]		
HCA Length	0.97 miles		
Project Length	0.97 miles		
Vintage	[redacted]		
Pipe Diameter	[redacted]		
MAOP	[redacted]		
SMYS	[redacted]		
HCA Threats	[redacted]		
Indirect Inspection Completion Date	[redacted]		
Direct Examination Completion Date	[redacted]		
Construction Start Date	[redacted]		
Construction Completion Date	[redacted]		
Assessment Due Date	[redacted]		
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	0	303,505	303,505

B. Maps and Images

Figure 1: Supply Line 30-72 Project Scope



II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Supply Line 30-72 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Los Angeles.
5. Environmental: No significant environmental impacts were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
30-72	0.97 miles	[redacted]	[redacted]
30-72	0.97 miles		
30-72	0.97 miles		

B. Direct Examination

Following the completion of the Indirect Inspection, two Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project direct examination(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No Identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Los Angeles.
5. Environmental: No significant environmental impacts were identified.
6. SRC/IRC: N/A

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	30-72
Mitigation/Remediation Type	None
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Repair Length	None
Inspection Length	25.16 feet
Repair Type	None
Cost Category	O&M

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	30-72
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Repair Length	None
Inspection Length	19.80 feet
Cost Category	O&M

Figure 2: Supply Line 30-72 Project Scope Including Direct Examination Sites

C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the Utilities' stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 0.97 miles on Supply Line 30-72 was completed on [redacted]. The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	0.97 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Coating Inspection

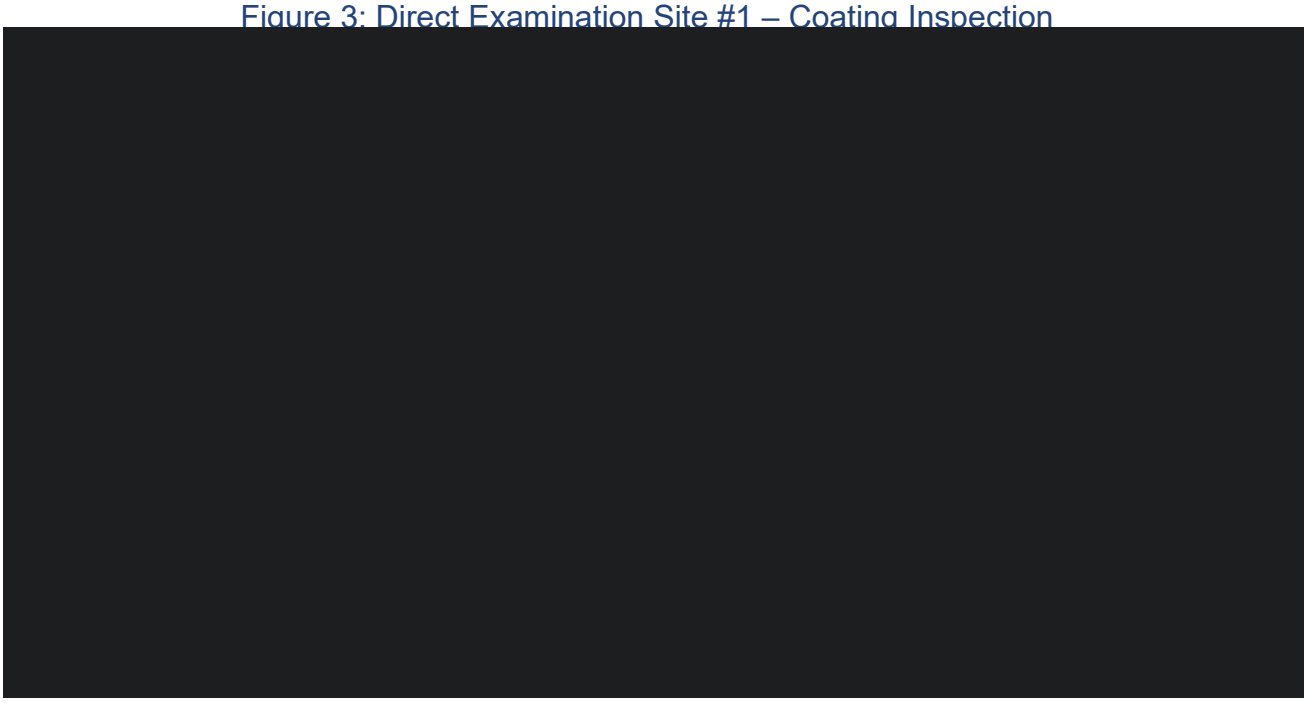


Figure 4: Direct Examination Site #1 – Excavation of Pipeline

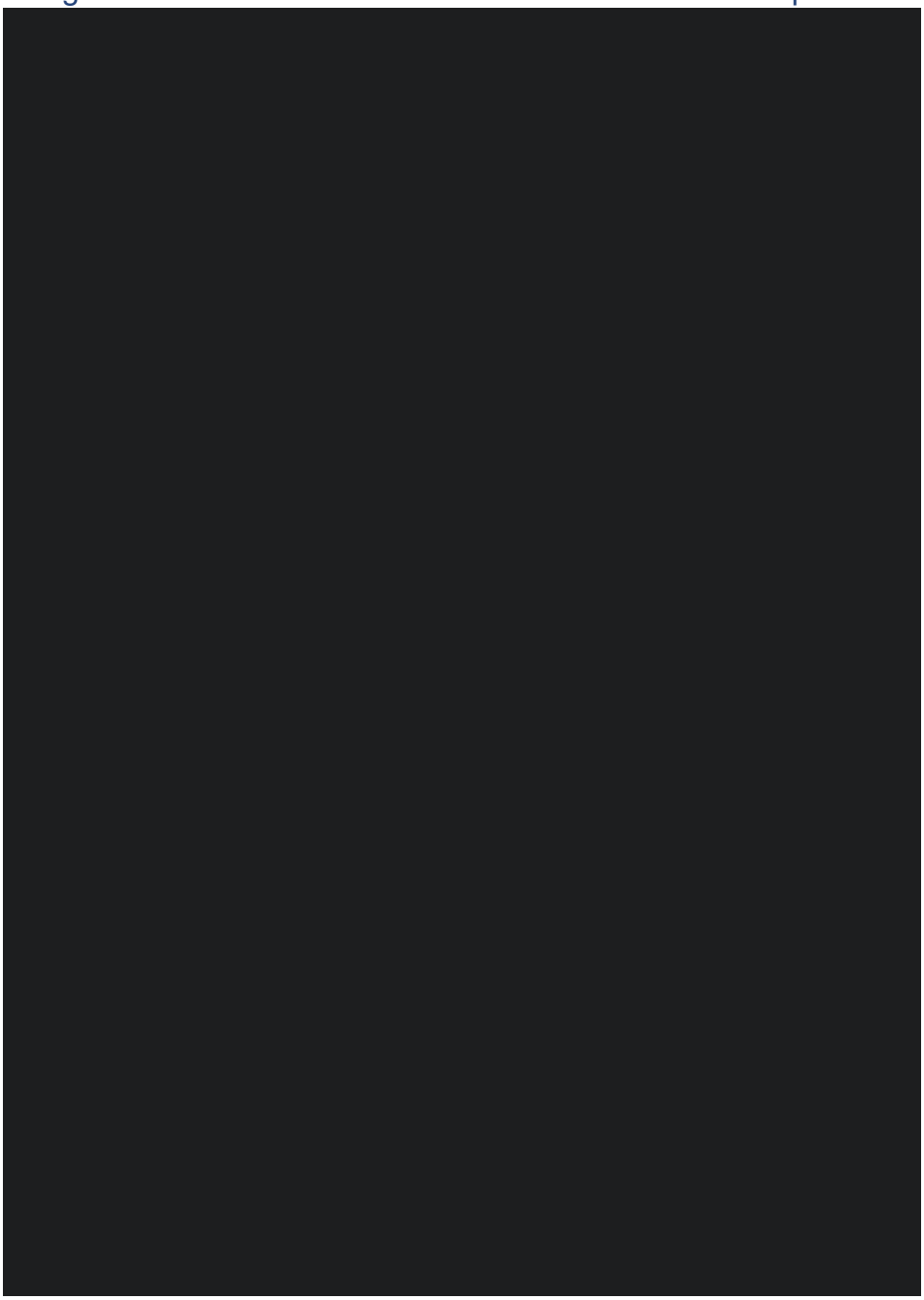


Figure 5: Direct Examination Site #1 – Excavation Location

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Actual Costs[1]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $303,505.

Table 6: Actual Direct Costs[2]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	13,396	13,396
Contract Costs	0	257,759	257,759
Material	0	0	0
Other Direct Charges	0	13,828	13,828
Total Direct Costs	0	284,984	284,984

Table 7: Actual Indirect Costs[3]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	18,521	18,521
AFUDC	0	0	0
Property Taxes	0	0	0
Total Indirect Costs	0	18,521	18,521

Table 8: Total Costs[4]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	303,505	303,505

[1] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[2] Values may not add to total due to rounding.
[3] Ibid.
[4] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 30-72 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $303,505.

End of Supply Line 30-72 TIMP Project Final Workpaper

I. SUPPLY LINE 31-09 TIMP PROJECT

A. Background and Summary

Supply Line 31-09 was assessed from [redacted] in the City of Diamond Bar to [redacted] in the City of Walnut and from [redacted] in the City of Covina to the [redacted] in the City of Covina. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to three sites, and Post-Assessment analysis.The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $1,505,825.

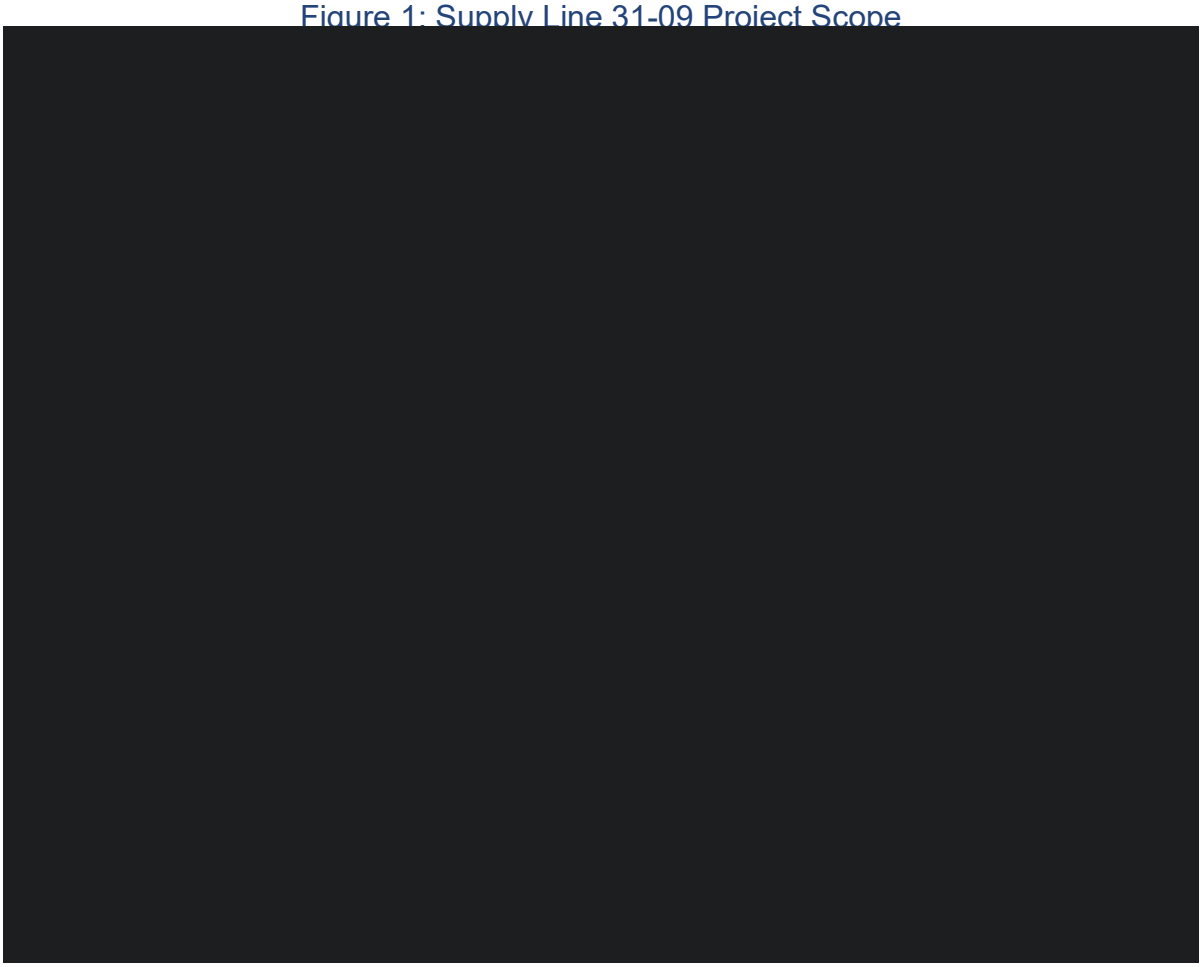
Table 1: General Project Information

Integrity Assessment Details			
Pipeline	31-09		
Assessment Type	[redacted]		
Location	Diamond Bar, Walnut, Covina, West Covina, Industry		
Class	[redacted]		
HCA Length	4.01 miles		
Project Length	4.04 miles		
Vintage	[redacted]		
Pipe Diameter			
MAOP			
SMYS			
HCA Threats			
Indirect Inspection Completion Date			
Direct Examination Completion Date			
Construction Start Date			
Construction Completion Date			
Assessment Due Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	0	1,505,825	1,505,825

[redacted]

B. Maps and Images

Figure 1: Supply Line 31-09 Project Scope



II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Supply Line 31-09 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained:
    a. Permits, traffic control drawings and plans from the cities of Covina, Industry, Walnut, West Covina, and Diamond Bar
    b. The Project Team also obtained an Encroachment Permit from Caltrans and Los Angeles County.
5. Environmental: No significant environmental constraints were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
31-09	4.01 miles	[redacted]	[redacted]
31-09	4.01 miles		
31-09	4.01 miles		

B. Direct Examination

Following the completion of the Indirect Inspection, three Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Covina and Los Angeles County.
5. Environmental: No significant environmental constraints were identified.
6. SRC/IRC: There was an Immediate Repair Condition (IRC) originating from Direct Examination at Site #1. Rapid communication and procedures were followed for temporary pressure reduction needed to establish a margin of safety as required by code 49 CFR 192.933. A pre-strength tested band was utilized to remediate condition on the pipeline.

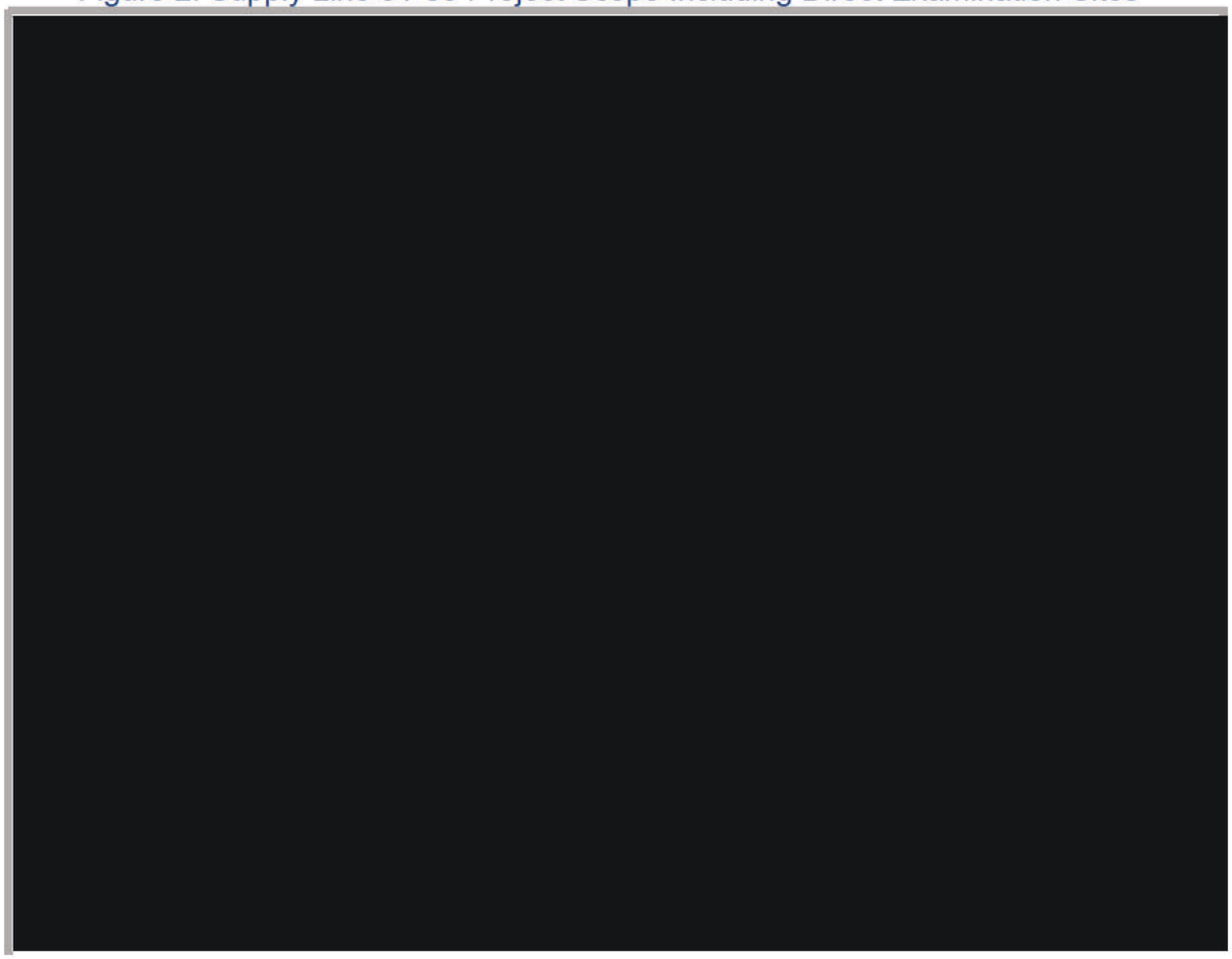
Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	31-09
Mitigation/Remediation Type	Soft Pad and Band
Within HCA	Yes
SRC/IRC	Yes
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	25.16 feet
Cost Category	O&M

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	31-09
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	19.80 feet
Cost Category	O&M

Direct Examination Details	
Site	3
Examination ID	[redacted]
Pipeline	31-09
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	16 feet
Cost Category	O&M

Figure 2: Supply Line 31-09 Project Scope Including Direct Examination Sites



C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 4.01 miles on Supply Line 31-09 was completed on [redacted] The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	4.01 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

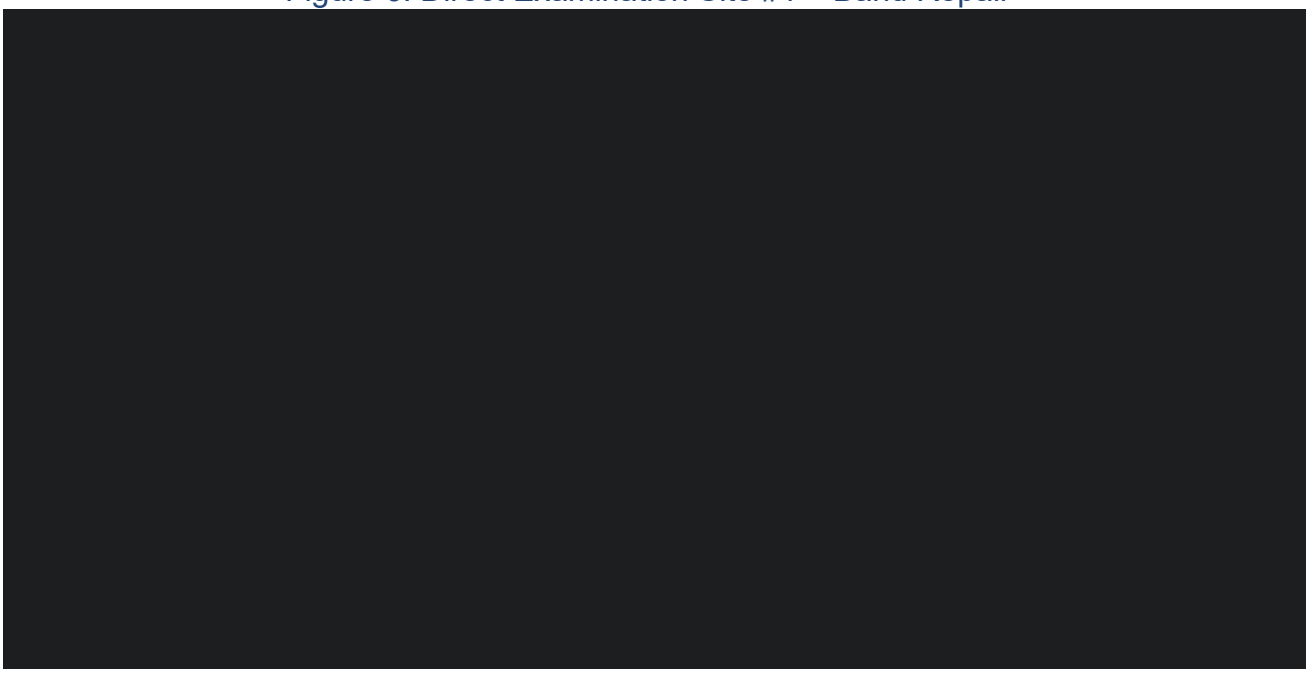
Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #3 – Coating Inspection

Figure 4: Direct Examination Site #3 – Excavation of Pipeline

Figure 5: Direct Examination Site #1- Site Overview

Figure 6: Direct Examination Site #1 – Band Repair



C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and disposal of hazardous material, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Actual Costs[2]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $1,505,825.

Table 6: Actual Direct Costs[3]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	130,796	130,796
Contract Costs	0	899,280	899,280
Material	0	348	348
Other Direct Charges	0	344,139	344,139
Total Direct Costs	0	1,374,563	1,374,563

Table 7: Actual Indirect Costs[4]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	132,261	132,261
AFUDC	0	0	0
Property Taxes	0	0	0
Total Indirect Costs	0	132,261	132,261

Table 8: Total Costs[5]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	1,505,825	1,505,825

[2] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[3] Values may not add to total due to rounding.
[4] Ibid.
[5] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 31-09 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $1,505,825.

End of Supply Line 31-09 TIMP Project Final Workpaper

I. SUPPLY LINE 32-21 TIMP PROJECT

A. Background and Summary

Supply Line 32-21 was assessed from [redacted] in the City of Alhambra to [redacted] in the City of Altadena. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to four sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $3,968,008.

Table 1: General Project Information

Integrity Assessment Details			
Pipeline	32-21		
Assessment Type	[redacted]		
Location	Alhambra, Altadena, Pasadena, South Pasadena		
Class	3, 4		
HCA Length	5.12 miles		
Project Length	5.13 miles		
Vintage	[redacted]		
Pipe Diameter			
MAOP			
SMYS			
HCA Threats			
Indirect Inspection Completion Date			
Direct Examination Completion Date			
Construction Start Date			
Construction Completion Date			
Assessment Due Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	3,387,487	580,521	3,968,008

[redacted]

B. Maps and Images

Figure 1: Supply Line 32-21 Project Scope

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Supply Line 32-21 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No customer impacts were identified.
3. Community Impacts: No community impacts were identified.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the cities of Alhambra, Altadena, Pasadena, South Pasadena and Caltrans.
5. Environmental: No significant environmental constraints were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
32-21	5.12 miles	[redacted]	[redacted]
32-21	5.12 miles		
32-21	5.12 miles		

B. Direct Examination

Following the completion of the Indirect Inspection, four Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No customer impacts were identified.
3. Community Impacts: No community impacts were identified.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings, and plans from the cities of Alhambra and Pasadena.
    a. The City of Pasadena required restoration from gutter to center of street due a moratorium on the street at Site #1.
5. Environmental: No significant environmental constraints were identified.
6. SRC/IRC: There were Immediate Repair Conditions (IRC) originating from Direct Examination at Site #1, #2, #3, and #4. Rapid communication and procedures were followed for temporary pressure reduction needed to establish a margin of safety as required by code 49 CFR 192.933.
    a. Bands were utilized to remediate conditions on the pipeline at Site #1 and #2.
    b. Replacement of pipelines were used to remediate conditions at Sites #3 and #4 .

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	32-21
Mitigation/Remediation Type	Band and Soft Pad
Within HCA	Yes
SRC/IRC	Yes
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	[redacted]
Construction Completion Date	
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	Capital

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	32-21
Mitigation/Remediation Type	Band and Soft Pad
Within HCA	Yes
SRC/IRC	Yes
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	Capital

Direct Examination Details	
Site	3
Examination ID	[redacted]
Pipeline	32-21
Mitigation/Remediation Type	Replacement
Within HCA	Yes
SRC/IRC	Yes
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	[redacted]
Construction Completion Date	
Replacement Length	32.08 feet
Inspection Length	7.16 feet
Cost Category	Capital

Direct Examination Details	
Site	4
Examination ID	[redacted]
Pipeline	32-21
Mitigation/Remediation Type	Replacement and Soft Pad
Within HCA	Yes
SRC/IRC	Yes
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	10 feet
Inspection Length	15.16 feet
Cost Category	Capital

Figure 2: Supply Line 32-21 Project Scope Including Direct Examination Sites

C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 5.12 miles on Supply Line 32-21 was completed on [redacted]. The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	5.12 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Coating Inspection

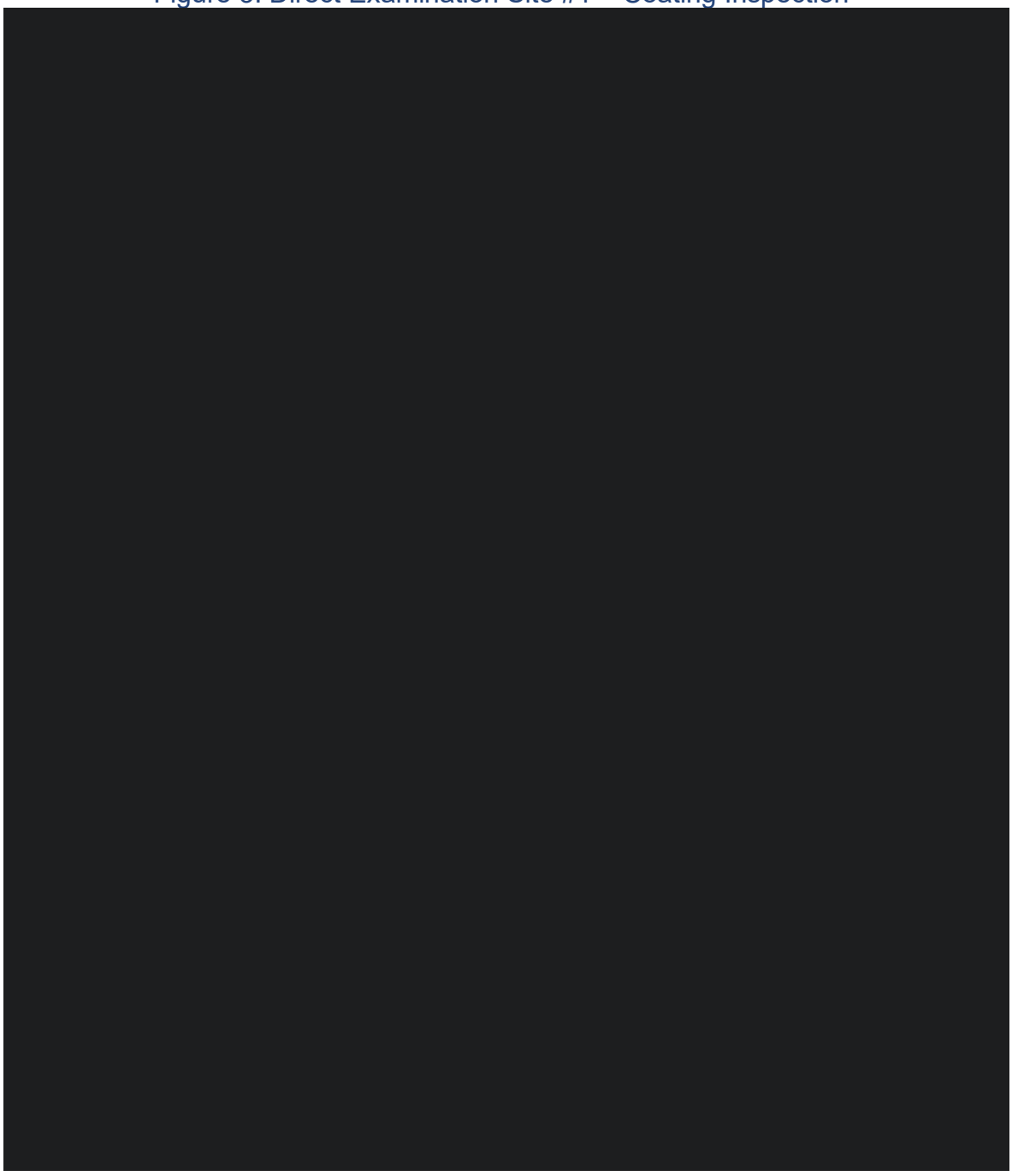


Figure 4: Direct Examination Site #3 – Bare Pipe Inspection

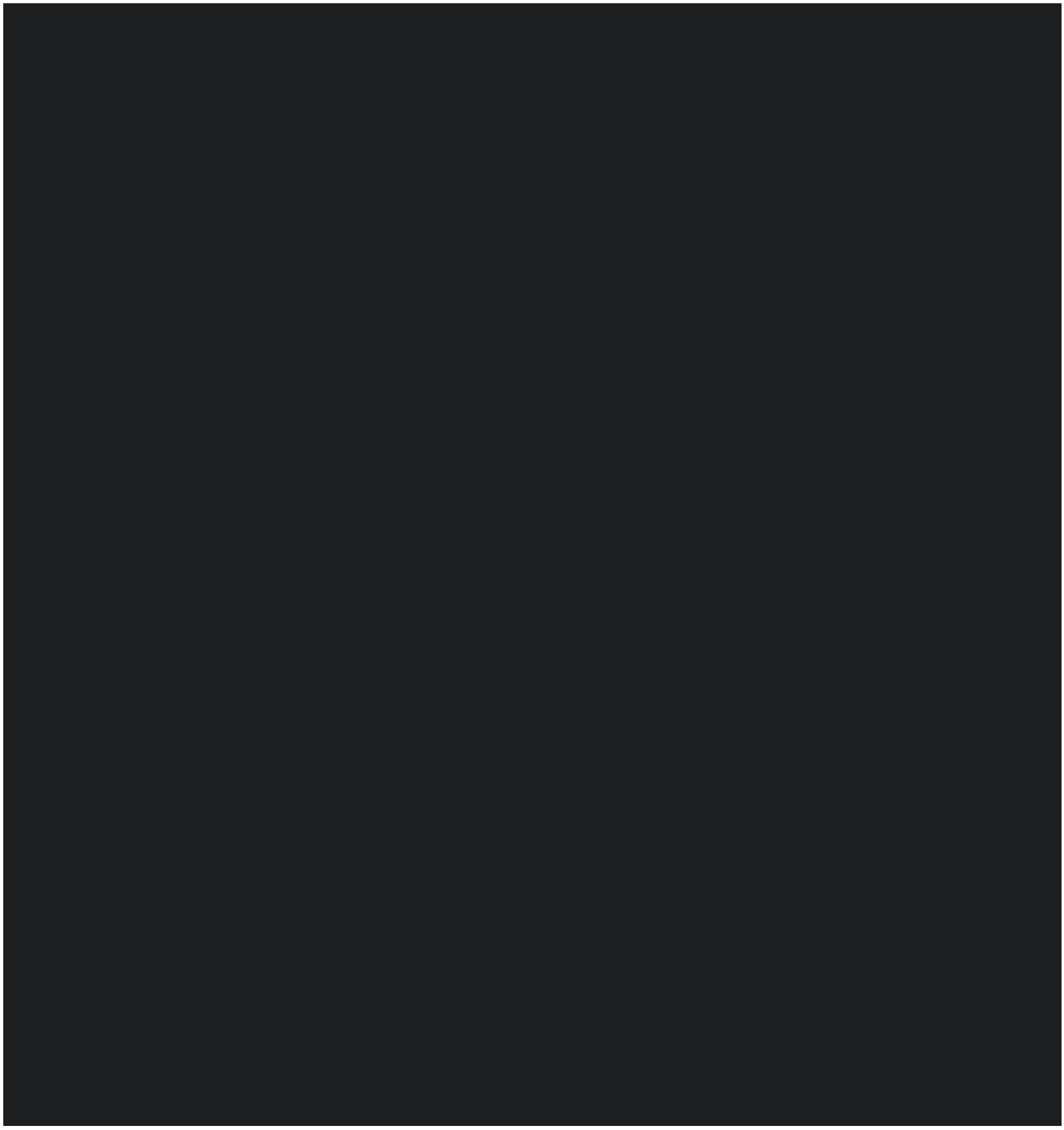


Figure 5: Direct Examination Site #4 – Coating Inspection

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, transportation, and disposal of hydrotest water and hazardous material, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Actual Costs[3]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $3,968,008.

Table 6: Actual Direct Costs[4]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	211,176	130,664	341,840
Contract Costs	1,893,526	106,036	1,999,561
Material	101	0	101
Other Direct Charges	322,002	235,415	557,417
Total Direct Costs	2,426,806	472,114	2,898,920

Table 7: Actual Indirect Costs[5]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	890,293	108,407	998,700
AFUDC	59,092	0	59,092
Property Taxes	11,296	0	11,296
Total Indirect Costs	960,682	108,407	1,069,089

Table 8: Total Costs[6]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	3,387,487	580,521	3,968,008

[3] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[4] Values may not add to total due to rounding.
[5] Ibid.
[6] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 32-21 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $3,968,008.

End of Supply Line 32-21 TIMP Project Final Workpaper

I. SUPPLY LINE 32-24, SUPPLY LINE 32-25 & SUPPLY LINE 44-725 TIMP PROJECT

A. Background and Summary

Supply Line 32-24 was assessed along [redacted], Supply Line 32-25 was assessed along [redacted] and Supply Line 44-725 was assessed along [redacted] in the City of Pacoima. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to four sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $1,877,141.

Table 1: General Project Information

Integrity Assessment Details			
Pipeline	32-24, 32-25, 44-725		
Assessment Type	[redacted]		
Location	Pacoima		
Class	[redacted]		
HCA Length	4.00 miles		
Project Length	5.03 miles		
Vintage	[redacted]		
Pipe Diameter			
MAOP			
SMYS			
HCA Threats			
Indirect Inspection Completion Date			
Direct Examination Completion Date			
Construction Start Date			
Construction Completion Date			
Assessment Due Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	0	1,877,141	1,877,141

B. Maps and Images

Figure 1: Supply Line 32-24, Supply Line 32-25 & Supply Line 44-725 Project Scope

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Supply Line 32-24, Supply Line 32-25 & Supply Line 44-725 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained standard permits, traffic control drawings and plans from the City of Los Angeles.
5. Environmental: No significant environmental constraints were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
32-24, 32-25, 44-725	4.00 miles	[redacted]	[redacted]
32-24, 32-25, 44-725	4.00 miles	[redacted]	[redacted]
32-24, 32-25, 44-725	4.00 miles	[redacted]	[redacted]

B. Direct Examination

Following the completion of the Indirect Inspection, four Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed an analysis of the pipeline system to evaluate project feasibility.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: There was community outreach in the form of Construction Notifications as the Project was in proximity of local schools.
4. Permit Restrictions: The Project Team obtained:
   a. Permits, traffic control drawings and plans from the City of Los Angeles.
   b. An exemption to work outside of peak hours in order to reduce the time required to complete the Direct Examination on Site #3 and #4.
5. Environmental: No significant environmental constraints were identified.
6. SRC/IRC: N/A

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	32-24
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	13.5 feet
Cost Category	O&M

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	44-725
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	O&M

Direct Examination Details	
Site	3
Examination ID	[redacted]
Pipeline	32-25
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	16.9 feet
Cost Category	O&M

Direct Examination Details	
Site	4
Examination ID	[redacted]
Pipeline	32-25
Mitigation/Remediation Type	None
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	O&M

Figure 2: Supply Line 32-24, Supply Line 32-25 & Supply Line 44-725 Project Scope Including Direct Examination Sites

C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 4.00 miles on Supply Line 32-24, Supply Line 32-25 & Supply Line 44-725 was completed on [redacted]. The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	4.00 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Coating Inspection

Figure 4: Direct Examination Site #1 – Bare Pipe Inspection

Figure 5: Direct Examination Site #3 – Excavation Location

Figure 6: Direct Examination Site #3 – Bare Pipe Inspection

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Cost Efficiency Actions

SoCalGas exercised due diligence in the design, planning, and construction activities for this Project to minimize or avoid costs when prudent to do so. As discussed above, the Project Team reviewed existing information, communicated with external stakeholders, and conducted a site evaluation to incorporate the site conditions in the Project plan and design. Specific examples of cost efficiency actions taken on this Project were:

Bundling of Projects: Supply Line 32-24, Supply Line 32-25, & Supply Line 44-725 share a Cathodic Protection system and the Project Team was able to reduce costs and minimize disruptions by bundling the assessment of the 3 lines which allowed for the streamlining of planning and construction.

B. Actual Costs[1]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $1,877,141.

Table 6: Actual Direct Costs[2]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	153,360	153,360
Contract Costs	0	1,124,259	1,124,259
Material	0	4,811	4,811
Other Direct Charges	0	390,427	390,427
Total Direct Costs	0	1,672,858	1,672,858

Table 7: Actual Indirect Costs[3]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	204,283	204,283
AFUDC	0	0	0
Property Taxes	0	0	0
Total Indirect Costs	0	204,283	204,283

Table 8: Total Costs[4]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	1,877,141	1,877,141

[1] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[2] Values may not add to total due to rounding.
[3] Ibid.
[4] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 32-24, Supply Line 32-25 & Supply Line 44-725 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $1,877,141.

End of Supply Line 32-24, Supply Line 32-25 & Supply Line 44-725 TIMP Project Final Workpaper

I. SUPPLY LINE 32-60 TIMP PROJECT

A. Background and Summary

Supply Line 32-60 was assessed along [redacted] in the City of Lancaster. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using above ground surveys, Direct Examinations made to three sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $1,696,309.

Table 1: General Project Information

Integrity Assessment Details			
Pipeline	32-60		
Assessment Type	[redacted]		
Location	Lancaster		
Class	[redacted]		
HCA Length	5.60 miles		
Project Length	9.43 miles		
Vintage	[redacted]		
Pipe Diameter			
MAOP			
SMYS			
HCA Threats			
Indirect Inspection Completion Date			
Direct Examination Completion Date			
Construction Start Date			
Construction Completion Date			
Assessment Due Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	0	1,696,309	1,696,309

[redacted]

B. Maps and Images

Figure 1: Supply Line 32-60 Project Scope

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Supply Line 32-60 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained:
    a. Permits, traffic control drawings and plans from the cities of Lancaster and Palmdale.
    b. An Encrochment Permit from the County of Los Angeles.
5. Environmental: No significant environmental constraints were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
32-60	5.60 miles	[redacted]	[redacted]
32-60	5.60 miles		
32-60	5.60 miles		

B. Direct Examination

Following the completion of the Indirect Inspection, three Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Lancaster.
5. Environmental: No significant environmental constraints were identified.
6. SRC/IRC: N/A

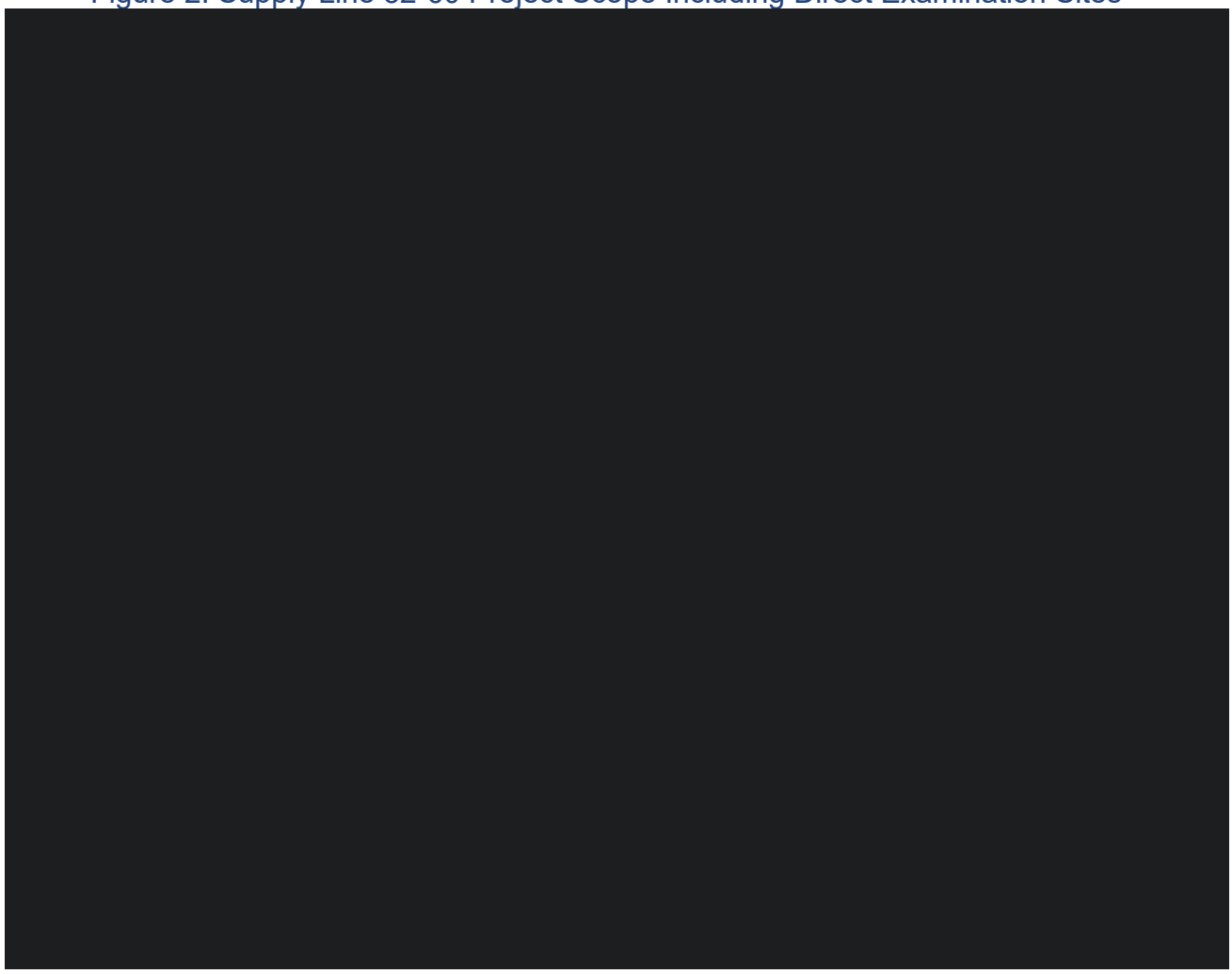
Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	32-60
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	15.5 feet
Cost Category	O&M

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	32-60
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	15.16 feet
Cost Category	O&M

Direct Examination Details	
Site	3
Examination ID	[redacted]
Pipeline	32-60
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	O&M

Figure 2: Supply Line 32-60 Project Scope Including Direct Examination Sites



C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 5.60 miles on Supply Line 32-60 was completed on [redacted]. The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	5.60 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Coating Inspection

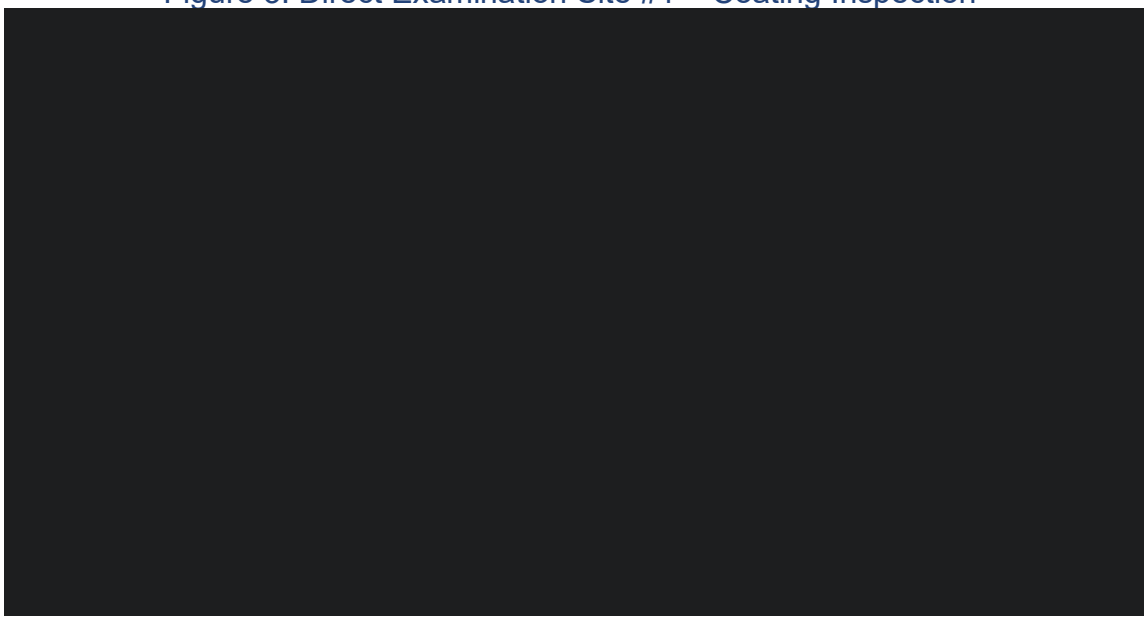


Figure 4: Direct Examination Site #2 – Examination Location

Figure 5: Direct Examination Site #3 - Examination Location

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Actual Costs[3]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $1,696,309.

Table 6: Actual Direct Costs[4]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	124,998	124,998
Contract Costs	0	914,595	914,595
Material	0	1,017	1,017
Other Direct Charges	0	494,075	494,075
Total Direct Costs	0	1,534,686	1,534,686

Table 7: Actual Indirect Costs[5]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	161,624	161,624
AFUDC	0	0	0
Property Taxes	0	0	0
Total Indirect Costs	0	161,624	161,624

Table 8: Total Costs[6]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	1,696,309	1,696,309

[3] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[4] Values may not add to total due to rounding.
[5] Ibid.
[6] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 32-60 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $1,696,309.

End of Supply Line 32-60 TIMP Project Final Workpaper

I. SUPPLY LINE 35-20-A & SUPPLY LINE 35-20-A1 TIMP PROJECT

A. Background and Summary

Supply Line 35-20-A & Supply Line 35-20-A1 were assessed from [redacted] in the City of Irvine. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to two sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $626,778.

Table 1: General Project Information

Integrity Assessment Details			
Assessment Type	[redacted]		
Location	Irvine		
Class	[redacted]		
HCA Length	2.03 miles		
Project Length	2.21 miles		
Indirect Inspection Completion Date	[redacted]		
Direct Examination Completion Date			
Construction Start Date			
Construction Completion Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	0	626,778	626,778

Integrity Assessment Details Per Line	
Pipeline	35-20-A
Vintage	[redacted]
Pipe Diameter	
MAOP	
SMYS	
HCA Threats	
Assessment Due Date	

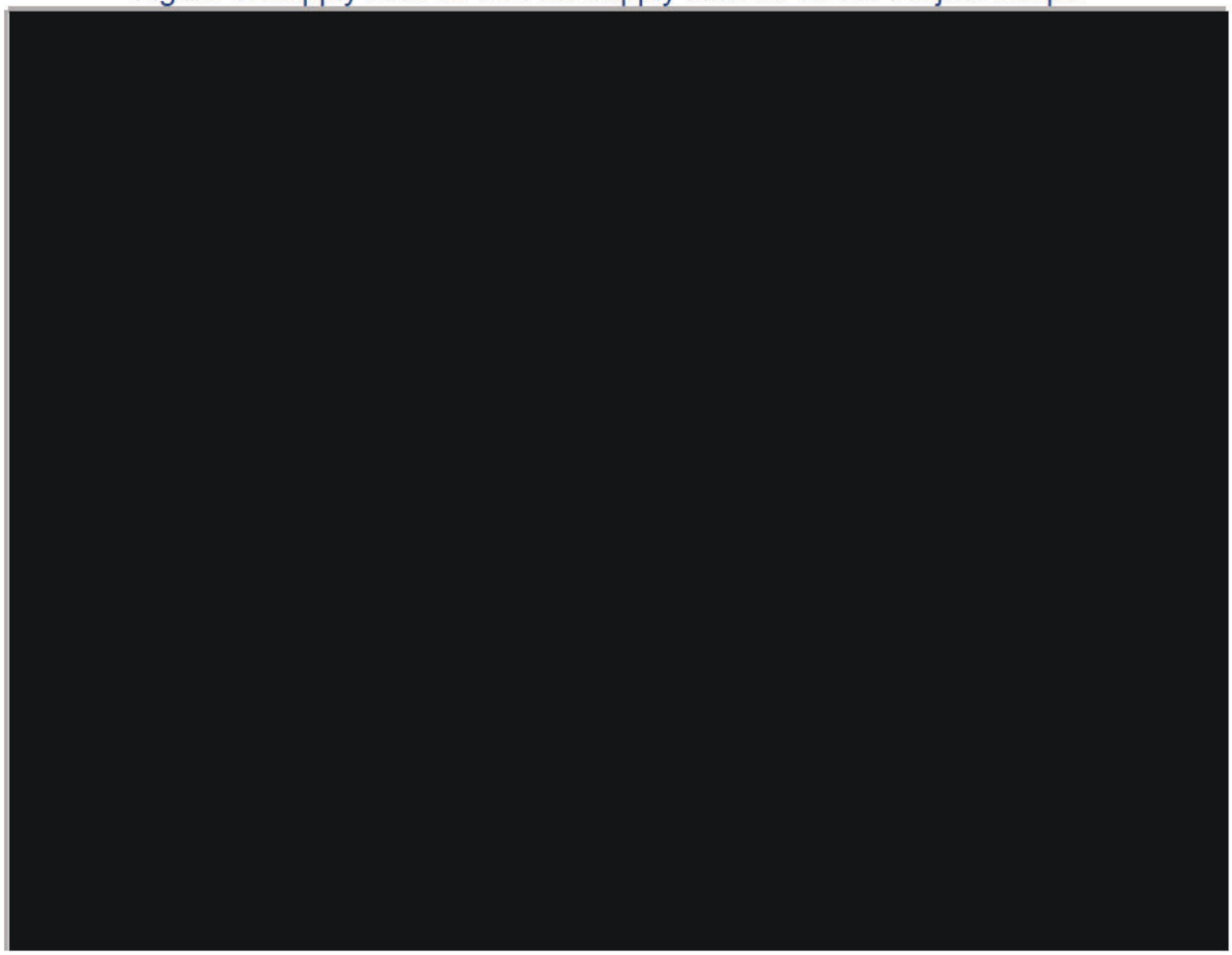
Integrity Assessment Details Per Line	
Pipeline	35-20-A1
Vintage	[redacted]
Pipe Diameter	
MAOP	
SMYS	
HCA Threats	
Assessment Due Date	

[redacted]

[3] Ibid.

B. Maps and Images

Figure 1: Supply Line 35-20-A & Supply Line 35-20-A1 Project Scope



II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Supply Line 35-20-A & Supply Line 35-20-A1 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained:
    a. Permits, traffic control drawings and plans from the City of Irvine.
    b. A variance request was granted from the City of Irvine to allow for work to be performed at night.
5. Environmental: No significant environmental constraints were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
35-20-A & 35-20-A1	2.03 miles	[redacted]	[redacted]
35-20-A & 35-20-A1	2.03 miles		
35-20-A & 35-20-A1	2.03 miles		

B. Direct Examination

Following the completion of the Indirect Inspection, two Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

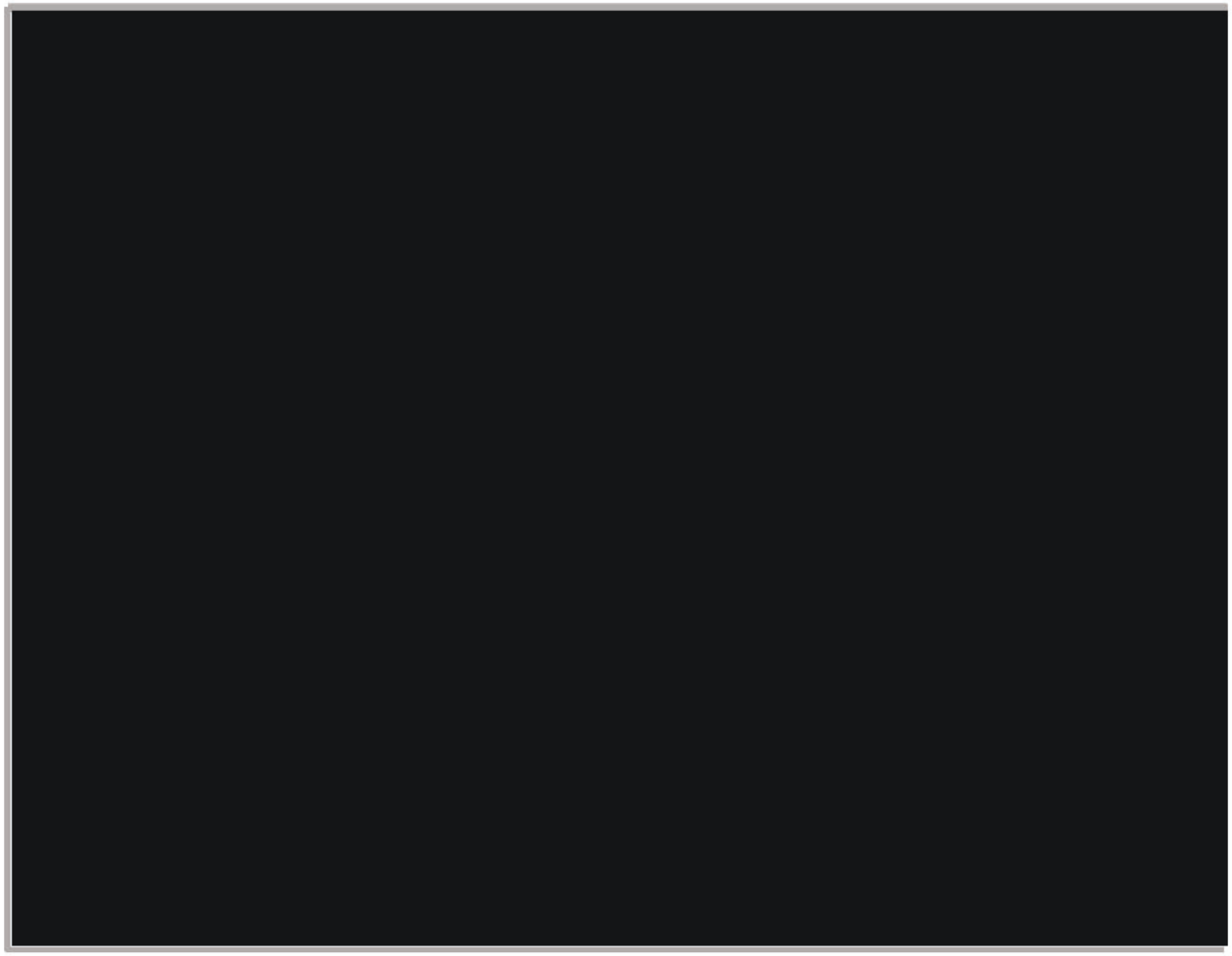
1. System Analysis: The Project Team completed an analysis of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings, and plans from the City of Irvine.
5. Environmental: No significant environmental constraints were identified.
6. SRC/IRC: N/A

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	35-20-A
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	O&M

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	35-20-A
Mitigation/Remediation Type	None
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	O&M

Figure 2: Supply Line 35-20-A & Supply Line 35-20-A1 Project Scope Including Direct Examination Sites



C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 2.03 miles on Supply Line 35-20-A & Supply Line 35-20-A1 was completed on [redacted]. The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	2.03 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Coating Inspection

Figure 4: Direct Examination Site #1 – Excavation of Pipeline

Figure 5: Direct Examination Site #1 – Excavation Location

Figure 6: Direct Examination Site #2 – Coating Inspection

Figure 7: Direct Examination Site #2 – Excavation of Pipeline

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Cost Efficiency Actions

SoCalGas exercised due diligence in the design, planning, and construction activities for this Project to minimize or avoid costs when prudent to do so. As discussed above, the Project Team reviewed existing information, communicated with external stakeholders, and conducted a site evaluation to incorporate the site conditions in the Project plan and design. Specific examples of cost efficiency actions taken on this Project were:

1. Bundling of Projects: Supply Line 35-20-A & Supply Line 35-20-A1 share a Cathodic Protection system, and the Project Team was able to reduce costs and minimize disruptions by bundling the assessment of the two lines which allowed for the streamlining of planning and construction.

B. Actual Costs[4]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $626,778.

Table 6: Actual Direct Costs[5]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	52,787	52,787
Contract Costs	0	332,548	332,548
Material	0	2,238	2,238
Other Direct Charges	0	184,912	184,912
Total Direct Costs	0	572,484	572,484

Table 7: Actual Indirect Costs[6]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	54,294	54,294
AFUDC	0	0	0
Property Taxes	0	0	0
Total Indirect Costs	0	54,294	54,294

Table 8: Total Costs[7]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	626,778	626,778

[4] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[5] Values may not add to total due to rounding.
[6] Ibid.
[7] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 35-20-A & Supply Line 35-20-A1 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $626,778.

End of Supply Line 35-20-A & Supply Line 35-20-A1 TIMP Project Final Workpaper

I. SUPPLY LINE 35-22 TIMP PROJECT

A. Background and Summary

Supply Line 35-22 was assessed along [redacted] in the City of Garden Grove. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to three sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $1,016,462.

Table 1: General Project Information

Integrity Assessment Details			
Pipeline	35-22		
Assessment Type	[redacted]		
Location	Garden Grove		
Class	[redacted]		
HCA Length	0.34 miles		
Project Length	0.35 miles		
Vintage	[redacted]		
Pipe Diameter			
MAOP			
SMYS			
HCA Threats			
Indirect Inspection Completion Date			
Direct Examination Completion Date			
Construction Start Date			
Construction Completion Date			
Assessment Due Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	466,326	550,136	1,016,462

[redacted]

B. Maps and Images

Figure 1: Supply Line 35-22 Project Scope

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Supply Line 35-22 by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Garden Grove.
5. Environmental: No significant environmental constraints were identified.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
35-22	0.34 miles	[redacted]	[redacted]
35-22	0.34 miles		
35-22	0.34 miles		

B. Direct Examination

Following the completion of the Indirect Inspection, three Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained permits, traffic control drawings and plans from the City of Garden Grove.
5. Environmental: No significant environmental constraints were identified.
6. SRC/IRC:
    a. There was an Immediate Repair Condition (IRC) discovered at Site #1 which required the installation of a band.
    b. There was an IRC discovered at Site #3 which required the installation of a band.

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	35-22
Mitigation/Remediation Type	Soft Pad and Band
Within HCA	Yes
SRC/IRC	Yes
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	Capital

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	35-22
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	17 feet
Cost Category	O&M

Direct Examination Details	
Site	3
Examination ID	[redacted]
Pipeline	35-22
Mitigation/Remediation Type	Soft Pad and Band
Within HCA	Yes
SRC/IRC	Yes
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	18.7 feet
Cost Category	Capital

Figure 2: Supply Line 35-22 Project Scope Including Direct Examination Sites

C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 0.34 miles on Supply Line 35-22 was completed on [redacted]. The validation analysis of the Direct Examinations following the Inspection resulted in no additional examinations.

Table 4: Project Summary

[redacted] Total Length	0.34 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Band Repair

Figure 4: Direct Examination Site #2 – Coating Inspection

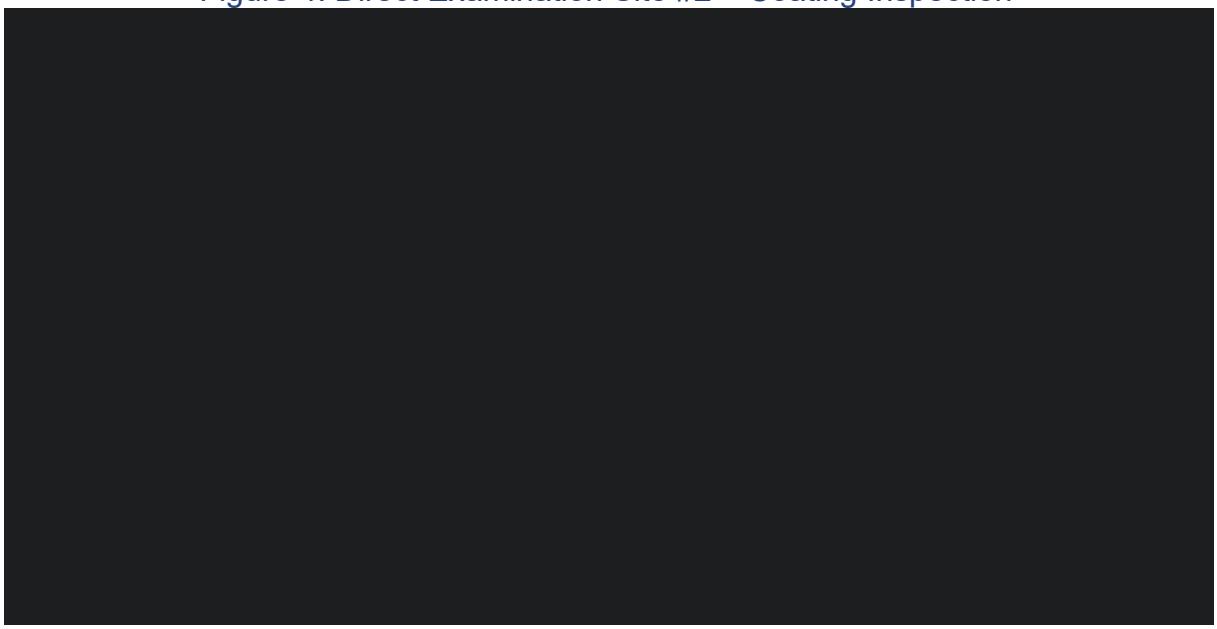


Figure 5: Direct Examination Site #3 – Excavation of Pipeline

Figure 6: Direct Examination Site #3 – Band Repair

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Actual Costs[2]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $1,016,462.

Table 6: Actual Direct Costs[3]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	51,749	72,449	124,198
Contract Costs	196,813	298,275	495,088
Material	367	12,029	12,396
Other Direct Charges	76,207	92,556	168,763
Total Direct Cost	325,136	475,310	800,445

Table 7: Actual Indirect Costs[4]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	140,854	74,826	215,680
AFUDC	164	0	164
Property Taxes	174	0	174
Total Indirect Costs	141,191	74,826	216,017

Table 8: Total Costs[5]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	466,326	550,136	1,016,462

[2] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[3] Values may not add to total due to rounding.
[4] Ibid.
[5] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 35-22 TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $1,016,462.

End of Supply Line 35-22 TIMP Project Final Workpaper

I. SUPPLY LINE 36-9-06 & SUPPLY LINE 36-9-06A TIMP PROJECT

A. Background and Summary

Supply Line 36-9-06 was assessed from [redacted] in the City of Santa Maria to [redacted] in the City of Morro Bay. Supply Line 36-9-06A was assessed from [redacted] in the City of San Luis Obispo. This Workpaper describes the activities associated with a Transmission Integrity Management Program (TIMP) [redacted] that includes Indirect Inspection using aboveground surveys, Direct Examinations made to four sites, and Post-Assessment analysis. The specific attributes of this Project are detailed below in General Project Information. The total loaded cost of the Project is $2,516,195.

Table 1: General Project Information

Integrity Assessment Details			
Pipeline	36-9-06, 36-9-06A		
Assessment Type	[redacted]		
Location	Morro Bay, San Luis Obispo, Santa Maria		
Class	2, 3		
HCA Length	35.50 miles		
Project Length	38.36 miles		
Vintage	[redacted]		
Pipe Diameter			
MAOP			
SMYS			
HCA Threats			
Indirect Inspection Completion Date			
Direct Examination Completion Date			
Construction Start Date			
Construction Completion Date			
Assessment Due Date			
Project Costs ($)	**Capital**	**O&M**	**Total**
Loaded Project Costs	0	2,516,195	2,516,195

[redacted]

B. Maps and Images

Figure 1: Supply Line 36-9-06 & Supply Line 36-9-06A Project Scope

II. ENGINEERING, DESIGN, AND CONSTRUCTABILITY

As described in the Prepared Direct Testimony of Jordan A. Zeoli, Fidel Galvan, and Travis Sera (Chapter II), TIMP projects follow a four-step assessment process: Pre-Assessment, Indirect Inspection, Direct Examination, and Post-Assessment. This Workpaper outlines construction activities during the Assessment process that occurred during the Indirect Inspection(s), Direct Examination(s) and Post-Assessment.

Prior to initiating execution of the assessment, SoCalGas reviewed available information and performed a detailed system analysis to verify the scope of the Project.

A. Indirect Inspection

SoCalGas initiated the planning process for the Supply Line 36-9-6 & Supply Line 36-9-06A by performing a Pre-Assessment engineering analysis to determine existing conditions and any impacts to the Project, confirm the appropriate assessment methods, and select the Indirect Inspection tools.

Key factors that influenced the planning and execution of the Project Indirect Inspection(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained:
    a. Permits, traffic control drawings and plans from the cities of Arroyo Grande, San Luis Obispo, Santa Maria, and San Luis Obispo County.
    b. A Permit for night work from the City of San Luis Obispo
    c. An Encroachment Permit from Caltrans.

5. Environmental: The Indirect Inspection required crossing the [redacted], and [redacted]. Probing was permissible within the waterways, but no excavations or digging was allowed.

Table 2: Indirect Inspection Segments

Line	Length	Threat Type	Indirect Inspection Tool Type
36-9-06, 36-9-06A	35.50 miles	[redacted]	[redacted]
36-9-06, 36-9-06A	35.50 miles	[redacted]	[redacted]
36-9-06, 36-9-06A	35.50 miles	[redacted]	[redacted]

B. Direct Examination

Following the completion of the Indirect Inspection, four Direct Examination sites were identified for validation. For each examination location, SoCalGas conducted site evaluations, communicated with stakeholders, performed potholing of the area to identify the presence of underground utilities and substructures, and prepared a project schedule that met criteria followed for examination.

Key factors that influenced the planning and execution of the Project Direct Examination(s) are as follows:

1. System Analysis: The Project Team completed a review of the pipeline system to evaluate project feasibility, and established a current interruption plan.
2. Customer Impacts: No identified customer impacts.
3. Community Impacts: No identified community impacts.
4. Permit Restrictions: The Project Team obtained:
    a. Permits, traffic control drawings and plans from the cities of San Luis Obispo, Santa Maria, Nipomo, and San Luis Obispo County.
    b. A Permit for night work from the City San Luis Obispo
    c. An Encroachment Permit from Caltrans.
5. Environmental: No significant environmental impacts were identified.
6. SRC/IRC: N/A

Table 3: Final Direct Examination Project Details

Direct Examination Details	
Site	1
Examination ID	[redacted]
Pipeline	36-9-06A
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	14.95 feet
Cost Category	O&M

Direct Examination Details	
Site	2
Examination ID	[redacted]
Pipeline	36-9-06
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	
SMYS	
Construction Start Date	
Construction Completion Date	
Replacement Length	N/A
Inspection Length	15.27 feet
Cost Category	O&M

Direct Examination Details	
Site	3
Examination ID	[redacted]
Pipeline	36-9-06
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	15 feet
Cost Category	O&M

Direct Examination Details	
Site	4
Examination ID	[redacted]
Pipeline	36-9-06
Mitigation/Remediation Type	Soft Pad
Within HCA	Yes
SRC/IRC	No
Pipe Diameter	[redacted]
MAOP	[redacted]
SMYS	[redacted]
Construction Start Date	[redacted]
Construction Completion Date	[redacted]
Replacement Length	N/A
Inspection Length	16 feet
Cost Category	O&M

Figure 2: Supply Line 36-9-06 & Supply Line 36-9-06A Project Scope Including Direct Examination Sites

C. Post-Assessment

The Post-Assessment step involves evaluating and documenting the effectiveness of the inspection tools, documenting the result of the assessment and the length of pipeline assessed, communicating assessment results to the stakeholders, identifying appropriate follow up Preventive and Mitigative measures, if necessary, and establishing the reassessment interval for the pipeline.

Final Summary

The [redacted] of 35.50 miles on Supply Line 36-9-06 & Supply Line 36-9-06A was completed on [redacted]. The validation analysis of the Direct Examinations following the Inspection resulted no additional examinations.

Table 4: Project Summary

[redacted] Total Length	35.50 miles
Direct Examination Completion Date	[redacted]

III. CONSTRUCTION

A. Construction Contractor Selection

Following completion of the engineering, design, and planning activities described above, SoCalGas selected the Construction Contractor that best met the selection criteria for this Project.

B. Construction Schedule

Table 5: Construction Timeline – Direct Examination

Construction Start Date	[redacted]	
Construction Completion Date		

Figure 3: Direct Examination Site #1 – Excavation Location

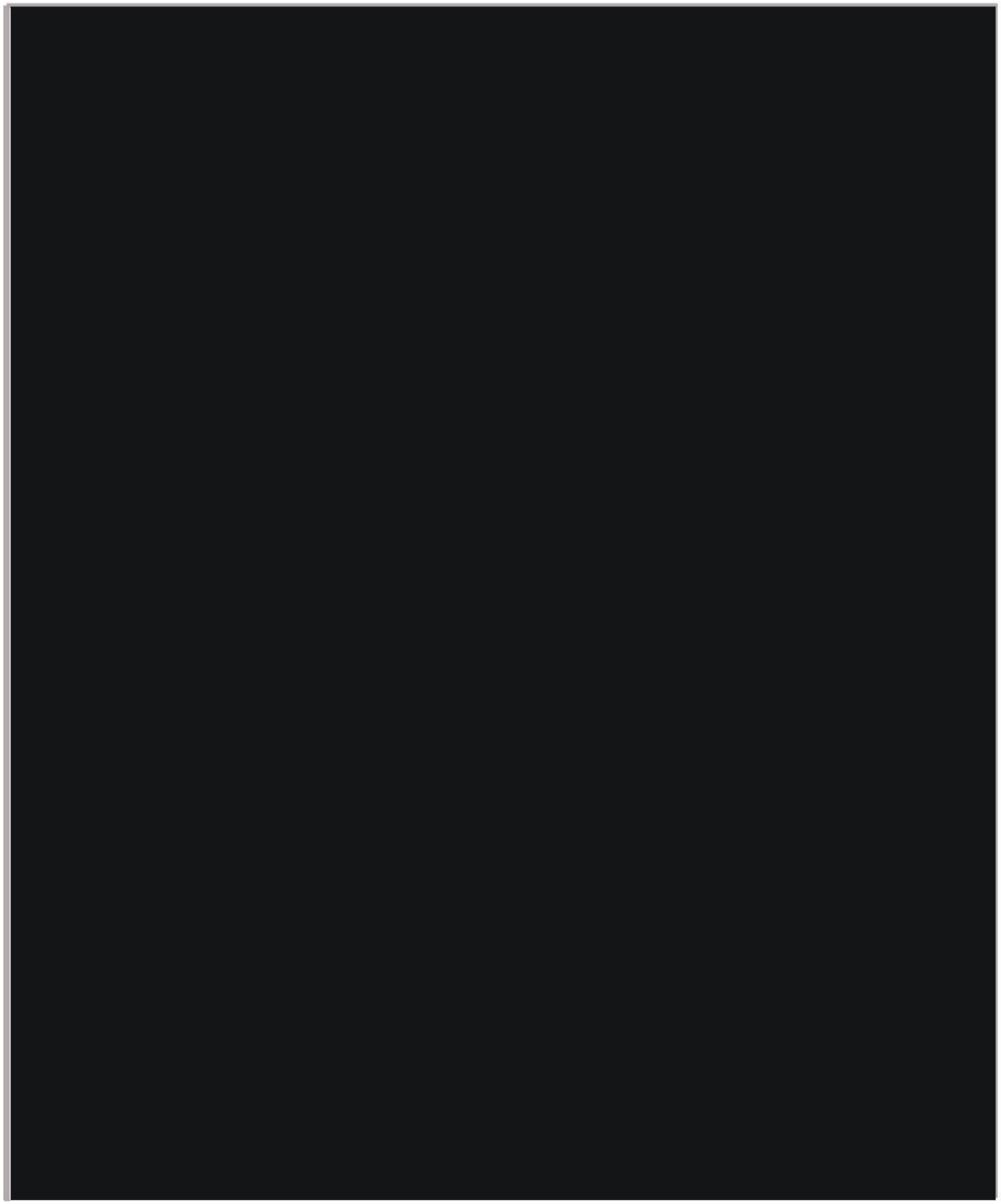


Figure 4: Direct Examination Site #2 – Excavation of Pipeline

Figure 5: Direct Examination Site #3 – Coating Inspection

Figure 6: Direct Examination Site #3 – Excavation Location

Figure 7: Direct Examination Site #4 – Traffic Control

C. Commissioning and Site Restoration

Commissioning activities include restoration of the site, final inspection, and placement of the pipeline back into service, and site demobilization. Closeout activities include development of final drawings, finalization of a reconciliation package, and updates to company recordkeeping systems to reflect the completed scope of work.

IV. PROJECT COSTS

A. Cost Efficiency Actions

SoCalGas exercised due diligence in the design, planning, and construction activities for this Project to minimize or avoid costs when prudent to do so. As discussed above, the Project Team reviewed existing information, communicated with external stakeholders, and conducted a site evaluation to incorporate the site conditions in the Project plan and design. Specific examples of cost efficiency actions taken on this Project were:

1. Bundling of Projects: Supply Line 36-9-06 & Supply Line 36-9-06A share a Cathodic Protection system and the Project Team was able to reduce costs and minimize disruptions by bundling the assessment of the two lines which allowed for the streamlining of planning and construction.

B. Actual Costs[3]

Actual loaded costs reflect the Labor, Material, and Services costs incurred to execute the Project. The total loaded cost of the Project is $2,516,195.

Table 6: Actual Direct Costs[4]

Direct Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Company Labor	0	210,231	210,231
Contract Costs	0	666,022	666,022
Material	0	7,796	7,796
Other Direct Charges	0	1,443,777	1,443,777
Total Direct Costs	0	2,327,826	2,327,826

Table 7: Actual Indirect Costs[5]

Indirect Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Overheads	0	188,369	188,369
AFUDC	0	0	0
Property Taxes	0	0	0
Total Indirect Costs	0	188,369	188,369

Table 8: Total Costs[6]

Total Costs ($)	Capital Costs	O&M Costs	Total Actual Costs
Total Loaded Costs	0	2,516,195	2,516,195

[3] These are the total project costs incurred between January 1, 2019, and December 31, 2023. Only direct costs and vacation and sick contribute to the TIMPBA revenue requirement that is presented in the Prepared Direct Testimony of Rae Marie Yu (Chapter III).
[4] Values may not add to total due to rounding.
[5] Ibid.
[6] Ibid.

V. CONCLUSION

SoCalGas enhanced the integrity of its natural gas system by executing the Supply Line 36-9-06 & Supply Line 36-9-06A TIMP Project. Through this Project, SoCalGas implemented and managed the requirements set forth in 49 C.F.R. § 192, Subpart O including the continual identification of threats to its pipelines, determination of the risk posed by these threats, scheduling and tracking assessments to address threats, conducting appropriate assessment in a prescribed timeline, collecting information about the condition of the pipelines, taking actions to minimize applicable threats and integrity concerns to reduce the risk of a pipeline failure, and reporting the findings of the assessment. The total loaded cost of the Project is $2,516,195.

End of Supply Line 36-9-06 & Supply Line 36-9-06A TIMP Project Final Workpaper