

| Observers Log | |
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| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|------------|-------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 977 | 1806 |

| | |
|------------------|---------------------|
| Line | MGL22040011a |
| Sequence | 1 |
| Direction | 257 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 400 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|------------------------|-----------|----------|
| SP | 977 | 1806 |
| Date MM/DD/YY | 05/17/22 | 05/18/22 |
| Time UTC | 06:50 | 19:42 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | N 8.7 kts | NE 6 kts |
| Sea State (m) | 0.5 m | 1.5 m |
| Water Depth (m) | 3510 m | 3154 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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| Observers Log | |
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|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|-------------|-------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 1998 | 3012 |

| | |
|------------------|--------------------|
| Line | MGL22040033 |
| Sequence | 2 |
| Direction | 022.9 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 250 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Description | SOL/FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 1998 | 3012 |
| Date MM/DD/YY | 05/22/22 | 05/23/22 |
| Time UTC | 06:01 | 15:06 |
| Volume (cu in.) | 4950 in3 | 6600 in3 |
| Wind (kts) | N 7 kts | |
| Sea State (m) | 1 m | |
| Water Depth (m) | | |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
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| Abbreviations | |
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| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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| Observers Log |
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|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

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|---------------|-------------|-------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 3001 | 3034 |

| | |
|-----------|-------------|
| Line | MGL22040033 |
| Sequence | 3 |
| Direction | 022.9 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 250 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|------------------------|----------|----------|
| SP | 3001 | 3034 |
| Date MM/DD/YY | 05/26/22 | 05/26/22 |
| Time UTC | 20:41 | 21:38 |
| Volume (cu in.) | 4950 in3 | 6600 in3 |
| Wind (kts) | SE 7 kts | SE 7 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 3564 m | |
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| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
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| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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| Observers Log |
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|-------------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

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|---------------|-------------|-------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 4023 | 4486 |

| | |
|------------------|--------------------|
| Line | MGL22040043 |
| Sequence | 4 |
| Direction | 022.9 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 250 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|-----------------|----------|-------------|
| SP | 4023 | 4486 |
| Date MM/DD/YY | 05/26/22 | 5/27/22 |
| Time UTC | 2311 | 10:48 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | SE 7 kts | SE 13.8 kts |
| Sea State (m) | 1 m | 0.5 m |
| Water Depth (m) | 3658 m | 104.39 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
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| FGSP- First Good SP | LCSP - Last Chargeable SP |
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| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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| Observers Log | |
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| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

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|---------------|-------------|-------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 4968 | 5309 |

| | |
|------------------|--------------------|
| Line | MGL22040055 |
| Sequence | 5 |
| Direction | 108.3 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 300 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|------------------------|----------|-------------|
| SP | 4968 | 5309 |
| Date MM/DD/YY | 30/05/22 | 30/05/22 |
| Time UTC | 00:01 | 12:28 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | W 11 kts | N 13kts kts |
| Sea State (m) | 3 m | 3 m |
| Water Depth (m) | 4256 m | 4366 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
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| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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| Observers Log | |
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|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|-------------|-------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 6302 | 6821 |

| | |
|------------------|--------------------|
| Line | MGL22040065 |
| Sequence | 6 |
| Direction | 108.3 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 300 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|-----------------|----------|-------------|
| SP | 6302 | 6821 |
| Date MM/DD/YY | 05/30/22 | 5/31/22 |
| Time UTC | 13:20 | 06:39 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | N 5 kts | NW 19.3 kts |
| Sea State (m) | 3 m | 1.5 m |
| Water Depth (m) | 4211 m | |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
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| Abbreviations | |
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| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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| Observers Log | |
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|-------------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|-------------|-------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 7097 | 7154 |

| | |
|------------------|---------------------|
| Line | MGL22040076A |
| Sequence | 7 |
| Direction | 203.4 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|-----------------|-----------|-----------|
| SP | 7097 | 7154 |
| Date MM/DD/YY | 06/02/22 | 06/02/22 |
| Time UTC | 21:39 | 21:59 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | NW 18 kts | NW 18 kts |
| Sea State (m) | 1.5 m | 1.5 m |
| Water Depth (m) | 942 m | 1204 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
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| Abbreviations | |
|--------------------------------|----------------------------|
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| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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| Observers Log | |
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|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|-------------|-------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 8036 | 8043 |

| | |
|------------------|---------------------|
| Line | MGL22040086b |
| Sequence | 8 |
| Direction | 203.4 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 250 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|-----------------|-----------|-------------|
| SP | 8036 | 8483 |
| Date MM/DD/YY | 06/02/22 | 06/03/22 |
| Time UTC | 22:07 | 10:16 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | NW 18 kts | NW 11.1 kts |
| Sea State (m) | 1.5 m | 1 m |
| Water Depth (m) | 1346.2 m | 3722.3 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
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| 3 | |
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| Abbreviations | |
|--------------------------------|----------------------------|
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| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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Observers Log

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|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|-------------|-------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 8967 | 9002 |

| | |
|------------------|--------------------|
| Line | MGL22040094 |
| Sequence | 9 |
| Direction | 287.8 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 300 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|-----------------|------------|------------|
| SP | 8967 | 9002 |
| Date MM/DD/YY | 06/05/22 | 06/05/22 |
| Time UTC | 12:47 | 13:20 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | NW 4.2 kts | SW 5.4 kts |
| Sea State (m) | 1 m | 0-1 m |
| Water Depth (m) | 2598 m | 2455 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
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| Abbreviations | |
|--------------------------------|----------------------------|
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| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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Observers Log

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|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|-------------|-------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 9041 | 9160 |

| | |
|------------------|---------------------|
| Line | MGL22040104a |
| Sequence | 10 |
| Direction | 287.8 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 300 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|-----------------|------------|----------|
| SP | 9041 | 9160 |
| Date MM/DD/YY | 06/05/22 | 06/05/22 |
| Time UTC | 14:19 | 18:21 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | NW 4.2 kts | W 10 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 2598 m | 1823 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| | |
| | |

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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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Observers Log

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | |
|------------------|---------------------|
| Line | MGL22040114c |
| Sequence | 11 |
| Direction | 287.8 |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| | |
| | |

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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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Observers Log

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | |
|------------------|---------------------|
| Line | MGL22040124d |
| Sequence | 12 |
| Direction | 287.8 |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| | |
| | |

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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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| Observers Log |
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| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 15295 | 15559 |

| | |
|------------------|---------------------|
| Line | MGL22040134e |
| Sequence | 13 |
| Direction | 287.8 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|------------------------|----------|-----------|
| SP | 15295 | 15559 |
| Date MM/DD/YY | 06/06/22 | 06/06/22 |
| Time UTC | 16:07 | 17:35 |
| Volume (cu in.) | 40 in3 | 6600 in3 |
| Wind (kts) | N10 kts | NW 10 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 2445 m | 2059 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| | |
| | |

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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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Observers Log

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | |
|------------------|---------------------|
| Line | MGL22040144f |
| Sequence | 14 |
| Direction | 287.8 |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| | |
| | |

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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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| Observers Log | |
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| | |
|-------------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 17588 | 17696 |

| | |
|------------------|---------------------|
| Line | MGL22040154g |
| Sequence | 15 |
| Direction | 287.8 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 17588 | 17696 |
| Date MM/DD/YY | 06/06/22 | 06/06/22 |
| Time UTC | 19:03 | 19:54 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | W 11 kts | W 10 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 1876 m | 1742 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| | |
| | |

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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 18758 | 18796 |

| | |
|------------------|---------------------|
| Line | MGL22040164h |
| Sequence | 16 |
| Direction | 287.8 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 300 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 18758 | 18796 |
| Date MM/DD/YY | 06/06/22 | 06/06/22 |
| Time UTC | 19:58 | 20:21 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | W 10 kts | W 10 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 1808 m | 1350 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| | |
| | |

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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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| Observers Log |
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| | |
|-------------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 19791 | 19815 |

| | |
|------------------|---------------------|
| Line | MGL22040174i |
| Sequence | 17 |
| Direction | 287.8 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 300 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|------------------------|----------|----------|
| SP | 19791 | 19815 |
| Date MM/DD/YY | 06/06/22 | 06/06/22 |
| Time UTC | 21:15 | 22:02 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | W 10 kts | W 10 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 1692 m | 1234 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| | |
| | |

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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 19920 | 20024 |

| | |
|------------------|---------------------|
| Line | MGL22040184j |
| Sequence | 18 |
| Direction | 287.8 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 19920 | 20024 |
| Date MM/DD/YY | 06/06/22 | 06/06/22 |
| Time UTC | 22:18 | 23:15 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | W 10 kts | W 10 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 1269 m | 1455 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| | |
| | |

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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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| Observers Log | |
|---------------|--|
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|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | NA | NA |
| SP # | 20841 | 20880 |

| | |
|------------------|---------------------|
| Line | MGL22040194k |
| Sequence | 19 |
| Direction | 287.8 |

| Streamer Parameters | | | | |
|--------------------------|-----|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | n/a | | | |
| Auxiliaries | n/a | | | |
| Shotpoint Interval: (m) | 300 | | | |
| Offset CS - CNG (m) | n/a | | | |
| Group Interval: (m) | n/a | | | |
| Number of channels | n/a | | | |
| Streamer Depth (m) | n/a | | | |
| SOL Cable Noise, μ B | n/a | | | |
| EOL Cable Noise, μ B | n/a | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Description | SOL/FGSP | EOL/LGSP |
|------------------------|----------|----------|
| SP | 20841 | 20880 |
| Date MM/DD/YY | 06/06/22 | 06/07/22 |
| Time UTC | 23:24 | 00:40 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | W 10 kts | W 10 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 1494 m | 1630 m |
| | | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| | |
| | |

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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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Observers Log

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 12:00-00:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | |
|------------------|----------------------|
| Line | MGL2204020M04 |
| Sequence | 20 |
| Direction | 107.8 |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |
| | |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| | |
| | |

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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LCFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

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Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 3 | 3 |
| SP # | 21110 | 21399 |

| | |
|------------------|----------------------|
| Line | MGL2204021T01 |
| Sequence | 021 |
| Direction | 287.1 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|-----------|
| SP | 21110 | 21399 |
| Date MM/DD/YY | 06/10/22 | 06/10/22 |
| Time UTC | 21:04 | 22:47 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | S 4 kts | SE 10 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 2103 m | 2023 m |

| Cable | Dead Channels |
|-------|---------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|-------------------------------------------------------|
| Test line to test the function of new SEAL equipment. |
| Headers may not be totally correct. |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 4 | 16 |
| SP # | 21729 | 27427 |

| | |
|------------------|----------------------|
| Line | MGL2204022M04 |
| Sequence | 022 |
| Direction | 107.8 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|------------|
| SP | 21729 | 27427 |
| Date MM/DD/YY | 06/10/22 | 06/11/22 |
| Time UTC | 00:06 | 11:52 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | SE 13 kts | E 16.8 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 1481.6 m | 2379.7 m |

| Cable | Dead Channels |
|-------|---------------------------------------------------------------------------|
| 1 | 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | |
| | |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|--------------------------------------------------------------------------------------------------------------------|
| First 90 shots were not recorded in sync with Navigation headers, and the shotpoint are not correct in the header. |
| ~trace 200 appears fishing gear stuck, strike noise chevrons can be seen in data |
| |
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| |

| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

| Time UTC | FILE | SP | Tape | Description |
|----------|------|-------|------|-------------------------------------------------------------|
| 00:06 | 1 | 21729 | 4 | SOL MGL2204022 - 36 guns, 6600 in3 |
| 02:40 | 450 | 22163 | 4 | EOT |
| 02:41 | 451 | 22164 | 5 | BOT |
| 05:19 | 900 | 22613 | 5 | EOT |
| 05:20 | 901 | 22614 | 6 | BOT |
| 08:24 | 1350 | 23063 | 6 | EOT |
| 08:24 | 1351 | 23064 | 7 | BOT |
| 11:31 | 1800 | 23513 | 7 | EOT |
| 11:31 | 1801 | 23514 | 8 | BOT |
| 14:30 | 2250 | 23963 | 8 | EOT |
| 14:30 | 2251 | 23964 | 9 | BOT |
| 14:44 | 2287 | 24000 | 9 | First noticed noise near trace 200 |
| 16:54 | 2630 | 24343 | 9 | SEAL HV fault, not recording. Last recorded shot. |
| 17:23 | 2631 | 24400 | 9 | SEAL now recording, first recorded shot. |
| 17:51 | 2700 | 24469 | 9 | EOT |
| 17:52 | 2701 | 24470 | 10 | BOT |
| 18:40 | 2838 | 24607 | 10 | Last good shot, shut down for turtle. SEAL still recording. |
| | | 24643 | | Missed shotpoint due to starting ramp up. |
| 18:58 | 2874 | 24644 | 10 | First shot of soft start, 1 gun, 40 in3 |
| 19:18 | 2911 | 24681 | 10 | First shot of full volume, 36 guns, 6600 in3 |
| 19:35 | 2955 | 24725 | 10 | Last good shot, SEAL still recording. |
| 19:36 | 2956 | 24725 | 10 | Power down for turtle. 40 in3 firing. |
| 19:51 | 2991 | 24761 | 10 | First shot of soft start, 1 gun, 40 in3 |
| 20:12 | 3036 | 24806 | 10 | Last shot of soft start, 34 guns, 5880 in3 |
| 20:12 | 3037 | 24807 | 10 | Power down for turtle. 1 gun, 40 in3 |
| 20:15 | 3043 | 24813 | 10 | Shut down for turtle, 0 guns. SEAL still recording. |
| | | 24827 | | Missed shotpoint due to starting ramp up. |
| 20:22 | 3057 | 24828 | 10 | First shot of soft start, 1 gun, 40 in3 |
| 20:43 | 3103 | 24874 | 10 | First shot of full volume, 36 guns, 6600 in3 |
| 20:59 | 3150 | 24921 | 10 | EOT |
| 20:59 | 3151 | 24922 | 11 | BOT |
| 21:38 | 3267 | 25038 | 11 | Shut down due to compressor problems, 0 in3 |
| 21:44 | 3282 | 25053 | 11 | First shot after shutdown, full volume, 36 guns, 6600 in3 |
| 22:05 | 3346 | 25117 | 11 | Power down for turtle. 1 gun, 40 in3 |
| 22:21 | 3383 | 25155 | 11 | First shot of soft start, 1 gun, 40 in3 |
| 22:23 | 3389 | 25161 | 11 | Last shot of soft start, 4 guns, 160 in3 |

| | | | | |
|-------|------|-------|----|-----------------------------------------------------|
| 22:24 | 3390 | 25162 | 11 | Power down for turtle. 1 gun, 40 in3 |
| 22:24 | 3392 | 25164 | 11 | Shut down for turtle, 0 guns. SEAL still recording. |
| 22:43 | 3435 | 25207 | 11 | First shot of soft start, 1 gun, 40 in3 |
| 23:04 | 3484 | 25256 | 11 | First shot of full volume, 36 guns, 6600 in3 |
| 23:42 | 3600 | 25372 | 11 | EOT |
| 23:43 | 3601 | 25373 | 12 | BOT |
| 00:59 | 3652 | 25424 | 12 | Last shot of the day |
| 00:00 | 3653 | 25425 | 12 | First shot of the day |
| 02:11 | 4050 | 25822 | 12 | EOT |
| 02:11 | 4051 | 25823 | 13 | BOT |
| 04:41 | 4500 | 26272 | 13 | EOT |
| 04:42 | 4501 | 26273 | 14 | BOT |
| 07:21 | 4950 | 26722 | 14 | EOT |
| 07:21 | 4951 | 26723 | 15 | BOT |
| 10:13 | 5400 | 27172 | 15 | EOT |
| 10:13 | 5401 | 27173 | 16 | BOT |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 17 | 19 |
| SP # | 28063 | 29057 |

| | |
|------------------|-----------------------|
| Line | MGL2204023MT02 |
| Sequence | 023 |
| Direction | 310.6 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|------------|----------|
| SP | 28063 | 29057 |
| Date MM/DD/YY | 06/12/22 | 06/12/22 |
| Time UTC | 13:15 | 18:58 |
| Volume (cu in.) | 4950 in3 | 6600 in3 |
| Wind (kts) | E 14.3 kts | SE 8 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | | 107 m |

| Cable | Dead Channels |
|-------|---------------------------------------------------------------------------|
| 1 | 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | |
| | |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|----------------------------------------------------|
| @SOL gun string 2 disabled for recovery and repair |
| |
| |
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| |
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| |

| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

| Time UTC | FILE | SP | Tape | Description |
|-------------|------|-------------|------|----------------------------------------------------------------------|
| 13:15 | 5656 | 28063 | 17 | SOL MGL2204023MT02 - 27 guns, 4950 in3, string 2 offline for repairs |
| 13:50 | 5751 | 28158 | 17 | 40cubic inches, 1 gun, power down, turtle sighting |
| 14:15 | | | | Autofiring from gun on string 2 |
| 14:16-14:17 | | 28231-28233 | | Missed shots, reconfiguring for soft start |
| 14:17 | 5824 | 28234 | 17 | Begin Ramp up in external |
| 14:38 | 5882 | 28292 | 17 | Ramp up complete, 27 guns 4950 cubic inches |
| 15:15 | 5988 | 28398 | 17 | 6600cubic inches, 36 guns |
| 15:19 | | | | pulling in streamer a bit to adjust soft tow |
| 15:19 | 6001 | 28411 | 17 | 40cubic inches, 1 gun, power down, turtle sighting |
| 15:24 | 6013 | 28423 | 17 | Streamer back in position, streamer tripped out, recording failed |
| | | 28424-28433 | | No recording, Streamer failed |
| 15:28 | 6014 | 28434 | | Streamer recording again |
| | | 28470 | | Missed shots, reconfiguring for soft start |
| 15:40 | 6050 | 28471 | 17 | Begin Ramp up in external |
| 15:59 | 6105 | 28526 | 17 | EOT |
| 15:59 | 6106 | 28527 | 18 | BOT |
| 15:59 | 6107 | 28528 | 18 | end ramp up, 33 guns 5520 cubic inches |
| 16:00 | 6108 | 28529 | 18 | 1 gun 40cubic inches |
| 16:15 | 6154 | 28575 | 18 | Begin Ramp up in external |
| 16:36 | 6217 | 28638 | 18 | Ramp up complete, 36 guns, 6600cubic inches |
| 16:56 | 6279 | 28700 | 18 | 40cubic inches, 1 gun, power down, turtle sighting |
| 17:13 | 6327 | 28750 | 18 | Begin Ramp up in external |
| 17:33 | 6389 | 28812 | 18 | Ramp up complete, 36 guns, 6600cubic inches |
| 18:28 | 6555 | 28978 | 18 | EOT |
| 18:29 | 6556 | 28979 | 19 | BOT |
| 18:34 | 6572 | 28995 | 19 | 40cubic inches, 1 gun, power down, turtle sighting |
| 18:58 | 6634 | 29057 | 19 | EOL MGL2204023MT02 - 36 guns, 6600 in3 |
| | | | | |
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| | | | | |
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Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 20 | 20 |
| SP # | 29596 | 29817 |

| | |
|------------------|----------------------|
| Line | MGL2204024M03 |
| Sequence | 024 |
| Direction | 202.9 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|-----------|
| SP | 29596 | 29817 |
| Date MM/DD/YY | 06/12/22 | 06/12/22 |
| Time UTC | 20:05 | 21:41 |
| Volume (cu in.) | 4950 in3 | 6600 in3 |
| Wind (kts) | S 10 kts | se 10 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 640 m | 1150 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|-------------------------------------------------------------|
| Soft start began at 20:01 with 40 in3, 1 gun, at S.P. 29586 |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 21 | 21 |
| SP # | 30043 | 30354 |

| | |
|------------------|-----------------------|
| Line | MGL2204025MT03 |
| Sequence | 025 |
| Direction | 021.7 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|-----------|
| SP | 30043 | 30354 |
| Date MM/DD/YY | 06/12/22 | 06/12/22 |
| Time UTC | 23:04 | 01:14 |
| Volume (cu in.) | 4950 in3 | 1960 in3 |
| Wind (kts) | S 10 kts | SE 10 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 1118 m | 121 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|-------------------------|
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| |

| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 22 | 27 |
| SP # | 30996 | 33605 |

| | |
|------------------|-----------------------|
| Line | MGL2204026M03a |
| Sequence | 026 |
| Direction | 202.9 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|-----------|
| SP | 30996 | 33605 |
| Date MM/DD/YY | 06/13/22 | 06/13/22 |
| Time UTC | 02:09 | 17:25 |
| Volume (cu in.) | 4950 in3 | 6600 in3 |
| Wind (kts) | SE 10 kts | SE 18 kts |
| Sea State (m) | 1 m | 2 m |
| Water Depth (m) | 124 m | 3497 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 28 | 31 |
| SP # | 34087 | 35469 |

| | |
|------------------|-----------------------|
| Line | MGL2204027MT04 |
| Sequence | 027 |
| Direction | 063.5 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 34087 | 35469 |
| Date MM/DD/YY | 06/13/22 | 06/14/22 |
| Time UTC | 18:59 | 04:28 |
| Volume (cu in.) | 4950 in3 | 6600 in3 |
| Wind (kts) | S 24 kts | S 14 kts |
| Sea State (m) | 2 m | 2 m |
| Water Depth (m) | 6317 m | 4090 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 32 | 37 |
| SP # | 35830 | 38326 |

| | |
|------------------|----------------------|
| Line | MGL2204028M05 |
| Sequence | 028 |
| Direction | 288.3 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|-----------|
| SP | 35830 | 38326 |
| Date MM/DD/YY | 06/14/22 | 06/14/22 |
| Time UTC | 06:03 | 21:08 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | E 12 kts | SE 23 kts |
| Sea State (m) | 2 m | 2 m |
| Water Depth (m) | 3973 m | 4276 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|------------------------------------------------------------------------------------------------------------------------------------|
| PSO noticed an airleak on Gun String 4 about 18:00. String 4 was recovered at end of line and gun 4-8 was found to be leaking air. |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Printed - 6/15/2022 8:36 PM

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 38 | 39 |
| SP # | 39166 | 39718 |

| | |
|------------------|-----------------------|
| Line | MGL2204029MT05 |
| Sequence | 029 |
| Direction | 108.2 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 39166 | 39718 |
| Date MM/DD/YY | 06/14/22 | 6/14/22 |
| Time UTC | 01:17 | 05:12 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | 24 kts | 24.7 kts |
| Sea State (m) | 3 m | 2.5 m |
| Water Depth (m) | 4205 m | 4033 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|------------|------------|
| | SOL | EOL |
| Tape # | 40 | |
| SP # | | |

| | |
|------------------|----------------------|
| Line | MGL2204030M05 |
| Sequence | 030 |
| Direction | 288.3 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | | |
| Date MM/DD/YY | 06/14/22 | 6/14/22 |
| Time UTC | | |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | 24 kts | |
| Sea State (m) | 3 m | |
| Water Depth (m) | | |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|-------------------------------|
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| |
| DNP No Data; Skipped Sequence |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 40 | 43 |
| SP # | 41582 | 42945 |

| | |
|------------------|-----------------------|
| Line | MGL2204031M05a |
| Sequence | 031 |
| Direction | 288.3 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|-------------|
| SP | 41582 | 42945 |
| Date MM/DD/YY | 06/15/22 | 6/15/22 |
| Time UTC | 07:17 | 15:19 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | 24 kts | SE 25.7 kts |
| Sea State (m) | 3 m | 3 m |
| Water Depth (m) | 4422 m | 4395 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|----------------------------------|
| |
| No gun header for first four sps |
| EOL dt auto-firing on Gun 4-4 |
| |
| |

| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

| Time UTC | FILE | SP | Tape | Description |
|----------|-------|-------|------|-------------------------------------------------------------------------------|
| 07:17 | 14226 | 41582 | 40 | BOL MGL2204031M05a - 6600 in3, 36 guns |
| 10:02 | 14676 | 42032 | 40 | EOT |
| 10:02 | 14677 | 42033 | 41 | BOT |
| 12:40 | 15126 | 42482 | 41 | EOT |
| 12:40 | 15127 | 42483 | 42 | BOT |
| 14:47 | 15500 | 42856 | 42 | Autofire Gun 4-4 |
| 14:53 | 15516 | 42872 | 42 | Gun 4-4 No Fire, Auto Fire |
| 14:55 | 15523 | 42879 | 42 | Autofire Gun 4-4 |
| 14:56 | 15524 | 42880 | 42 | Autofire Gun 4-4 |
| 15:01 | 15538 | 42895 | 42 | Disable Gun 4-4, occasional autofires seen |
| 15:03 | 15545 | 42901 | 42 | Autofire Gun 4-4, Disable String 4, and bleed down, 27 guns 4950 cubic inches |
| | | | | Autofires on S.P. 42917, 42924, 42929, 42938 |
| 15:14 | 15575 | 42931 | 42 | EOT |
| 15:14 | 15576 | 42932 | 43 | BOT |
| 15:19 | 15589 | 42945 | 43 | EOL MGL2204031MT05a - 4950 in3, 27 guns |
| | | | | |
| | | | | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 44 | 49 |
| SP # | 43570 | 46064 |

| | |
|------------------|-----------------------|
| Line | MGL2204032M05b |
| Sequence | 032 |
| Direction | 288.3 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|-----------|
| SP | 43570 | 46064 |
| Date MM/DD/YY | 06/15/22 | 06/16/22 |
| Time UTC | 20:41 | 11:56 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | SE 21 kts | E23.4 kts |
| Sea State (m) | 3 m | 3 m |
| Water Depth (m) | 4130 m | 4266 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 50 | 52 |
| SP # | 47185 | 48250 |

| | |
|------------------|-----------------------|
| Line | MGL2204033MT06 |
| Sequence | 033 |
| Direction | 196.3 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|-----------|
| SP | 47185 | 48250 |
| Date MM/DD/YY | 06/16/22 | 06/16/22 |
| Time UTC | 13:26 | 20:17 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | SE 21 kts | SE 23 kts |
| Sea State (m) | 3 m | 3 m |
| Water Depth (m) | 4085 m | 3576 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 53 | 59 |
| SP # | 48700 | 51576 |

| | |
|------------------|----------------------|
| Line | MGL2204034M01 |
| Sequence | 034 |
| Direction | 023.2 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|----------|
| SP | 48700 | 51576 |
| Date MM/DD/YY | 06/16/22 | 06/17/22 |
| Time UTC | 21:33 | 15:43 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | SE 27 kts | SE17 kts |
| Sea State (m) | 3 m | 1.5 m |
| Water Depth (m) | 3346 m | 133 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 60 | 60 |
| SP # | 52336 | 52748 |

| | |
|------------------|-----------------------|
| Line | MGL2204035MT07 |
| Sequence | 035 |
| Direction | 121.9 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|-----------|
| SP | 52336 | 52748 |
| Date MM/DD/YY | 06/17/22 | 06/17/22 |
| Time UTC | 18:22 | 21:49 |
| Volume (cu in.) | 40 in3 | 6600 in3 |
| Wind (kts) | SE 16 kts | SW 12 kts |
| Sea State (m) | 2 m | 2 m |
| Water Depth (m) | 141 m | 251 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - Becel |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 61 | 66 |
| SP # | 53010 | 55560 |

| | |
|------------------|----------------------|
| Line | MGL2204036M06 |
| Sequence | 036 |
| Direction | 203.4 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|----------|
| SP | 53010 | 55560 |
| Date MM/DD/YY | 06/17/22 | 06/18/22 |
| Time UTC | 21:59 | 14:05 |
| Volume (cu in.) | 6600 in3 | 40 in3 |
| Wind (kts) | SW 10 kts | NW 4 kts |
| Sea State (m) | 2 m | 1 m |
| Water Depth (m) | 407 m | 3518 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 67 | 67 |
| SP # | 56141 | 56576 |

| | |
|------------------|-----------------------|
| Line | MGL2204037MT08 |
| Sequence | 037 |
| Direction | 125.3 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 56141 | 56576 |
| Date MM/DD/YY | 06/18/22 | 06/18/22 |
| Time UTC | 15:18 | 18:22 |
| Volume (cu in.) | 3300 in3 | 6600 in3 |
| Wind (kts) | SW 2 kts | W 8 kts |
| Sea State (m) | 2 m | 2 m |
| Water Depth (m) | 3564 m | 3550 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
|----------------------------------------------------------------------|
| Starting with reduced volume d/t strings 1 and 2 onboard for repairs |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 68 | 73 |
| SP # | 57738 | 60432 |

| | |
|------------------|----------------------|
| Line | MGL2204038M07 |
| Sequence | 038 |
| Direction | 022.8 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 57738 | 60432 |
| Date MM/DD/YY | 06/18/22 | 06/19/22 |
| Time UTC | 19:07 | 11:32 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | W 8 kts | N 5 kts |
| Sea State (m) | 2 m | 2 m |
| Water Depth (m) | 3554 m | 198 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 74 | 74 |
| SP # | 61181 | 61473 |

| | |
|------------------|-----------------------|
| Line | MGL2204039MT09 |
| Sequence | 039 |
| Direction | 184.2 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|-----------|
| SP | 61181 | 61473 |
| Date MM/DD/YY | 06/19/22 | 06/19/22 |
| Time UTC | 13:39 | 15:31 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | NW13 kts | NW 14 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 1051 m | 985 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 75 | 77 |
| SP # | 64141 | 65316 |

| | |
|------------------|-----------------------|
| Line | MGL2204040M04a |
| Sequence | 040 |
| Direction | 107.8 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 64141 | 65316 |
| Date MM/DD/YY | 06/19/22 | 06/19/22 |
| Time UTC | 16:43 | 23:19 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | NW13 kts | W 9 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 914 m | 1754 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 78 | 79 |
| SP # | 66013 | 66884 |

| | |
|------------------|-----------------------|
| Line | MGL2204041MT10 |
| Sequence | 041 |
| Direction | 319.6 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|----------|
| SP | 66013 | 66884 |
| Date MM/DD/YY | 06/20/22 | 06/20/22 |
| Time UTC | 00:19 | 07:31 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | NW 14 kts | NW9 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 1430 m | 111 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 80 | 85 |
| SP # | 67100 | 69372 |

| | |
|------------------|----------------------|
| Line | MGL2204042M02 |
| Sequence | 042 |
| Direction | 211.9 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 67100 | 69372 |
| Date MM/DD/YY | 06/20/22 | 06/20/22 |
| Time UTC | 09:04 | 22:34 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | N9 kts | W 6. kts |
| Sea State (m) | 1-2 m | 1-2m m |
| Water Depth (m) | 545 m | 3538 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 86 | 86 |
| SP # | 70040 | 70395 |

| | |
|------------------|-----------------------|
| Line | MGL2204043MT11 |
| Sequence | 043 |
| Direction | 032.3 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 70040 | 70395 |
| Date MM/DD/YY | 06/21/22 | 06/21/22 |
| Time UTC | 00:08 | 02:21 |
| Volume (cu in.) | 40 in3 | 6600 in3 |
| Wind (kts) | SW 5 kts | NE 3 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 3410 m | 4087 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 87 | 92 |
| SP # | 70998 | 73627 |

| | |
|------------------|-----------------------|
| Line | MGL2204044M02a |
| Sequence | 044 |
| Direction | 211.9 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 70998 | 73627 |
| Date MM/DD/YY | 06/21/22 | 06/21/22 |
| Time UTC | 03:32 | 20:04 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | E 1 kts | E 20 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 3958 m | 3820 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 93 | 97 |
| SP # | 74235 | 76216 |

| | |
|------------------|-----------------------|
| Line | MGL2204045M02b |
| Sequence | 045 |
| Direction | 211.9 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|-------------|
| SP | 74235 | 76216 |
| Date MM/DD/YY | 06/22/22 | 6/22/22 |
| Time UTC | 01:22 | 14:16 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | SE 20 kts | SE 16.3 kts |
| Sea State (m) | 1.5 m | 2 m |
| Water Depth (m) | 3508 m | 3663 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 98 | 100 |
| SP # | 77098 | 78206 |

| | |
|------------------|-----------------------|
| Line | MGL2204046MT12 |
| Sequence | 046 |
| Direction | 060.8 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|-----------|
| SP | 77098 | 78206 |
| Date MM/DD/YY | 06/22/22 | 6/22/22 |
| Time UTC | 16:06 | 22:22 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | SE 14 kts | SE 30 kts |
| Sea State (m) | 1.5 m | 3 m |
| Water Depth (m) | 3526 m | 3525 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 101 | 116 |
| SP # | 78686 | 85537 |

| | |
|------------------|-----------------------|
| Line | MGL2204047M01a |
| Sequence | 047 |
| Direction | 257.3 |

| Streamer Parameters | | | | |
|-------------------------|--------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 15000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 50 | | | |
| Offset CS - CNG (m) | 209 | | | |
| Group Interval: (m) | 12.5 | | | |
| Number of channels | 1200 | | | |
| Streamer Depth (m) | 12.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 6600 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 12 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 18 |
| Total recording delay | 0 |
| Sample Rate | 2ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 200Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|----------|
| SP | 78686 | 85537 |
| Date MM/DD/YY | 06/22/22 | 06/24/22 |
| Time UTC | 23:01 | 22:42 |
| Volume (cu in.) | 6600 in3 | 6600 in3 |
| Wind (kts) | SE 30 kts | S 30 kts |
| Sea State (m) | 3 m | 3 m |
| Water Depth (m) | 3520 m | 3123 m |

| Cable | Dead Channels |
|-------|-------------------------------------------------------------------------------|
| 1 | 12, 13, 24, 25, 56, 73, 301, 519, 529, 541, 549, 813, 829, 861, 877, 885, 886 |
| | Noisy Channels: 535, 666, 1185 |
| | Weak Channels: 309 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
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| General / Line Comments |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

| Time UTC | FILE | SP | Tape | Description |
|----------|-------|-------|------|---------------------------------------------------------------------------------|
| 23:01 | 38810 | 78686 | 101 | SOL MGL2204047M01a - 6600 in3, 36 guns |
| 23:59 | 38954 | 78830 | 101 | Last Shot of the Day |
| 00:00 | 38955 | 78831 | 101 | First Shot of the Day |
| 02:04 | 39259 | 79135 | 101 | EOT |
| 02:04 | 39260 | 79136 | 102 | BOT |
| 05:42 | 39709 | 79585 | 102 | EOT |
| 05:42 | 39710 | 79586 | 103 | BOT |
| 09:32 | 40159 | 80035 | 103 | EOT |
| 09:32 | 40160 | 80036 | 104 | BOT |
| 11:37 | 40396 | 80272 | 104 | Gun string 2 secured for recovery, depth jumper broken on last cluster. 4950in3 |
| 12:17 | 40461 | 80337 | 104 | Re-deploy gunstring #2. Full Gun Volume 6600in3 |
| 13:33 | 40609 | 80485 | 104 | EOT |
| 13:33 | 40610 | 80486 | 105 | BOT |
| 16:59 | 41059 | 80935 | 105 | EOT |
| 16:59 | 41060 | 80936 | 106 | BOT |
| 20:24 | 41509 | 81385 | 106 | EOT |
| 20:24 | 41510 | 81386 | 107 | BOT |
| 23:55 | 41959 | 81835 | 107 | EOT |
| 23:56 | 41960 | 81836 | 108 | BOT |
| 23:59 | 41967 | 81843 | 108 | Last Shot of the Day |
| 00:00 | 41968 | 81844 | 108 | First Shot of the Day |
| 03:16 | 42409 | 82286 | 108 | EOT |
| 03:16 | 42410 | 82287 | 109 | BOT |
| 06:09 | 42859 | 82735 | 109 | EOT |
| 06:09 | 42860 | 82736 | 110 | BOT |
| 08:47 | 43309 | 83185 | 110 | EOT |
| 08:47 | 43310 | 83186 | 111 | BOT |
| 11:29 | 43759 | 83635 | 111 | EOT |
| 11:29 | 43760 | 83636 | 112 | BOT |
| 14:07 | 44209 | 84085 | 112 | EOT |
| 14:07 | 44210 | 84086 | 113 | BOT |
| 16:50 | 44659 | 84535 | 113 | EOT |
| 16:50 | 44660 | 84536 | 114 | BOT |
| 19:28 | 45109 | 84985 | 114 | EOT |
| 19:29 | 45110 | 84986 | 115 | BOT |
| 22:06 | 45559 | 85435 | 115 | EOT |

| | | | | |
|-------|-------|-------|-----|----------------------------------------|
| 22:06 | 45560 | 85436 | 116 | BOT |
| 22:42 | 45661 | 85537 | 116 | EOL MGL2204047M01a - 6600 in3, 36 guns |
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Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 118 | 120 |
| SP # | 87293 | 89835 |

| | |
|------------------|-----------------------|
| Line | MGL2204048S102 |
| Sequence | 048 |
| Direction | 035.1 |

| Streamer Parameters | | | | |
|-------------------------|-----------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 6000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 25 | | | |
| Offset CS - CNG (m) | 162 | | | |
| Group Interval: (m) | 6.25&12.5 | | | |
| Number of channels | 528 | | | |
| Streamer Depth (m) | 6.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 3300 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 6 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 10 |
| Total recording delay | 0 |
| Sample Rate | 1ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 400Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|-----------|
| SP | 87293 | 89835 |
| Date MM/DD/YY | 06/26/22 | 06/26/22 |
| Time UTC | 12:01 | 19:46 |
| Volume (cu in.) | 3300 in3 | 3300 in3 |
| Wind (kts) | N 6 kts | NW 14 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 4585 m | 188 m |

| Cable | Dead Channels |
|-------|-----------------|
| 1 | |
| | Noisy Channels: |
| | Weak Channels: |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|-------------------------------------------------------|
| First 96 channels (4 sections): SSAS RD 6.25m spacing |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 121 | 122 |
| SP # | 90976 | 92159 |

| | |
|------------------|-----------------------|
| Line | MGL2204049ST01 |
| Sequence | 049 |
| Direction | 163.5 |

| Streamer Parameters | | | | |
|-------------------------|-----------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 6000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 25 | | | |
| Offset CS - CNG (m) | 162 | | | |
| Group Interval: (m) | 6.25&12.5 | | | |
| Number of channels | 528 | | | |
| Streamer Depth (m) | 6.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 3300 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 6 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 10 |
| Total recording delay | 0 |
| Sample Rate | 1ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 400Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|-----------|
| SP | 90976 | 92159 |
| Date MM/DD/YY | 06/27/22 | 06/28/22 |
| Time UTC | 20:22 | 00:11 |
| Volume (cu in.) | 3300 in3 | 3300 in3 |
| Wind (kts) | W 18 kts | NW 14 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 171 m | 1123 m |

| Cable | Dead Channels |
|-------|-----------------|
| 1 | |
| | Noisy Channels: |
| | Weak Channels: |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|-------------------------------------------------------|
| First 96 channels (4 sections): SSAS RD 6.25m spacing |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 123 | 125 |
| SP # | 92699 | 94887 |

| | |
|------------------|-----------------------|
| Line | MGL2204050S101 |
| Sequence | 050 |
| Direction | 299.9 |

| Streamer Parameters | | | | |
|-------------------------|-----------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 6000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 25 | | | |
| Offset CS - CNG (m) | 162 | | | |
| Group Interval: (m) | 6.25&12.5 | | | |
| Number of channels | 528 | | | |
| Streamer Depth (m) | 6.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 3300 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 6 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 10 |
| Total recording delay | 0 |
| Sample Rate | 1ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 400Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|----------|
| SP | 92699 | 94887 |
| Date MM/DD/YY | 06/27/22 | 06/27/22 |
| Time UTC | 00:48 | 07:36 |
| Volume (cu in.) | 3300 in3 | 3300 in3 |
| Wind (kts) | NW 12 kts | W 5 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 1143 m | 1457 m |

| Cable | Dead Channels |
|-------|-----------------|
| 1 | |
| | Noisy Channels: |
| | Weak Channels: |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|-------------------------------------------------------|
| First 96 channels (4 sections): SSAS_RD 6.25m spacing |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 127 | 128 |
| SP # | 95317 | 97479 |

| | |
|------------------|-----------------------|
| Line | MGL2204051S202 |
| Sequence | 051 |
| Direction | 024.4 |

| Streamer Parameters | | | | |
|-------------------------|-----------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 6000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 25 | | | |
| Offset CS - CNG (m) | 162 | | | |
| Group Interval: (m) | 6.25&12.5 | | | |
| Number of channels | 528 | | | |
| Streamer Depth (m) | 6.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 3300 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 6 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 10 |
| Total recording delay | 0 |
| Sample Rate | 1ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 400Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|-----------|
| SP | 95317 | 97479 |
| Date MM/DD/YY | 06/28/22 | 06/28/22 |
| Time UTC | 01:27 | 08:03 |
| Volume (cu in.) | 3300 in3 | 3300 in3 |
| Wind (kts) | N 15 kts | N 5.5 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 4791.7 m | 1430.8 m |

| Cable | Dead Channels |
|-------|-----------------|
| 1 | |
| | Noisy Channels: |
| | Weak Channels: |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |

| General / Line Comments |
|-------------------------------------------------------|
| First 96 channels (4 sections): SSAS_RD 6.25m spacing |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|--------------|
| | SOL | EOL |
| Tape # | 129 | 130 |
| SP # | 98036 | 99191 |

| | |
|------------------|-----------------------|
| Line | MGL2204052ST02 |
| Sequence | 052 |
| Direction | |

| Streamer Parameters | | | | |
|-------------------------|-----------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 6000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 25 | | | |
| Offset CS - CNG (m) | 162 | | | |
| Group Interval: (m) | 6.25&12.5 | | | |
| Number of channels | 528 | | | |
| Streamer Depth (m) | 6.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 3300 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 6 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 10 |
| Total recording delay | 0 |
| Sample Rate | 1ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 400Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|------------|
| SP | 98036 | 99191 |
| Date MM/DD/YY | 06/28/22 | 06/28/22 |
| Time UTC | 08:53 | 12:25 |
| Volume (cu in.) | 3300 in3 | 3300 in3 |
| Wind (kts) | N 6.7 kts | NW 9.2 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 1366 m | 2648 m |

| Cable | Dead Channels |
|-------|-----------------|
| 1 | |
| | Noisy Channels: |
| | Weak Channels: |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|-------------------------------------------------------|
| First 96 channels (4 sections): SSAS_RD 6.25m spacing |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|--------------|---------------|
| | SOL | EOL |
| Tape # | 131 | 132 |
| SP # | 99863 | 101115 |

| | |
|------------------|-----------------------|
| Line | MGL2204053S201 |
| Sequence | 053 |
| Direction | 292.3 |

| Streamer Parameters | | | | |
|-------------------------|-----------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 6000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 25 | | | |
| Offset CS - CNG (m) | 162 | | | |
| Group Interval: (m) | 6.25&12.5 | | | |
| Number of channels | 528 | | | |
| Streamer Depth (m) | 6.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 3300 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 6 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 10 |
| Total recording delay | 0 |
| Sample Rate | 1ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 400Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|-----------|----------|
| SP | 99863 | 101115 |
| Date MM/DD/YY | 06/28/22 | 06/28/22 |
| Time UTC | 13:30 | 17:32 |
| Volume (cu in.) | 3300 in3 | 3300 in3 |
| Wind (kts) | N 6.6 kts | S 4 kts |
| Sea State (m) | 1 m | 2 m |
| Water Depth (m) | 3049 m | 2913 m |

| Cable | Dead Channels |
|-------|-----------------|
| 1 | |
| | Noisy Channels: |
| | Weak Channels: |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|----------------------------------------------------------------------------------|
| First 96 channels (4 sections): SSAS RD 6.25m spacing |
| During ODP line intersection crossing, 1860 cu in (14 guns) firing in a ramp up. |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|---------------|---------------|
| | SOL | EOL |
| Tape # | 133 | 133 |
| SP # | 102017 | 102872 |

| | |
|------------------|-----------------------|
| Line | MGL2204054ST03 |
| Sequence | 054 |
| Direction | 115.1 |

| Streamer Parameters | | | | |
|-------------------------|-----------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 6000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 25 | | | |
| Offset CS - CNG (m) | 162 | | | |
| Group Interval: (m) | 6.25&12.5 | | | |
| Number of channels | 528 | | | |
| Streamer Depth (m) | 6.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 3300 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 6 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 10 |
| Total recording delay | 0 |
| Sample Rate | 1ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 400Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 102017 | 102872 |
| Date MM/DD/YY | 06/28/22 | 06/28/22 |
| Time UTC | 18:22 | 21:19 |
| Volume (cu in.) | 3300 in3 | 3300 in3 |
| Wind (kts) | SW 6 kts | SW 7 kts |
| Sea State (m) | 2 m | 2 m |
| Water Depth (m) | 3057 m | 2988 m |

| Cable | Dead Channels |
|-------|------------------------------|
| 1 | 141, 157, 189, 205, 213, 214 |
| | Noisy Channels: 513 |
| | Weak Channels: |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|-------------------------------------------------------|
| First 96 channels (4 sections): SSAS RD 6.25m spacing |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|---------------|---------------|
| | SOL | EOL |
| Tape # | 134 | 139 |
| SP # | 104221 | 109021 |

| | |
|------------------|-----------------------|
| Line | MGL2204055S231 |
| Sequence | 055 |
| Direction | 292.3 |

| Streamer Parameters | | | | |
|-------------------------|-----------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 6000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 25 | | | |
| Offset CS - CNG (m) | 162 | | | |
| Group Interval: (m) | 6.25&12.5 | | | |
| Number of channels | 528 | | | |
| Streamer Depth (m) | 6.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 3300 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 6 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 10 |
| Total recording delay | 0 |
| Sample Rate | 1ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 400Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|------------|
| SP | 104221 | 109021 |
| Date MM/DD/YY | 06/28/22 | 06/28/22 |
| Time UTC | 22:05 | 12:44 |
| Volume (cu in.) | 3300 in3 | 3300 in3 |
| Wind (kts) | SW 4 kts | NE 8.5 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 2959 m | 3247 m |

| Cable | Dead Channels |
|-------|------------------------------|
| 1 | 141, 157, 189, 205, 213, 214 |
| | Noisy Channels: 513 |
| | Weak Channels: |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|-------------------------------------------------------|
| First 96 channels (4 sections): SSAS RD 6.25m spacing |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP - First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|---------------|---------------|
| | SOL | EOL |
| Tape # | 140 | 141 |
| SP # | 110052 | 111275 |

| | |
|------------------|-----------------------|
| Line | MGL2204056ST04 |
| Sequence | 056 |
| Direction | 185.4 |

| Streamer Parameters | | | | |
|-------------------------|-----------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 6000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 25 | | | |
| Offset CS - CNG (m) | 162 | | | |
| Group Interval: (m) | 6.25&12.5 | | | |
| Number of channels | 528 | | | |
| Streamer Depth (m) | 6.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 3300 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 6 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 10 |
| Total recording delay | 0 |
| Sample Rate | 1ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 400Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|-----------|
| SP | 110052 | 111275 |
| Date MM/DD/YY | 06/29/22 | 06/29/22 |
| Time UTC | 13:33 | 17:16 |
| Volume (cu in.) | 3300 in3 | 3300 in3 |
| Wind (kts) | NE 6 kts | NE 12 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 3748 m | 4129 m |

| Cable | Dead Channels |
|-------|------------------------------|
| 1 | 141, 157, 189, 205, 213, 214 |
| | Noisy Channels: 513 |
| | Weak Channels: |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|-------------------------------------------------------|
| First 96 channels (4 sections): SSAS RD 6.25m spacing |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

Observers Log

| | |
|------------|--------------------|
| Vessel | Marcus G. Langseth |
| Client | NSF - BeceI |
| Area | Guerrero Gap |
| Job Number | MGL2204 |

| | | |
|-----------------|---------------|-------------|
| Shift | 00:00-12:00 | 00:00-12:00 |
| Science Officer | Todd Jensvold | |
| Acquisition | Todd Jensvold | Klay Curtis |
| Navigation | Alan Thompson | Cody Bahlau |

| | | |
|---------------|---------------|---------------|
| | SOL | EOL |
| Tape # | 142 | 144 |
| SP # | 111417 | 113702 |

| | |
|------------------|-----------------------|
| Line | MGL2204057S302 |
| Sequence | 057 |
| Direction | 039.8 |

| Streamer Parameters | | | | |
|-------------------------|-----------|---|---|---|
| | 1 | 2 | 3 | 4 |
| Length (m) | 6000 | | | |
| Auxiliaries | 12 NFH | | | |
| Shotpoint Interval: (m) | 25 | | | |
| Offset CS - CNG (m) | 162 | | | |
| Group Interval: (m) | 6.25&12.5 | | | |
| Number of channels | 528 | | | |
| Streamer Depth (m) | 6.0 | | | |
| SOL Cable Noise, µB | | | | |
| EOL Cable Noise, µB | | | | |

| Source Parameters | |
|----------------------|--------------------|
| Total Volume | 3300 in3 |
| Work Pressure | 1950psi +/- 100psi |
| Dual Source | no |
| Depth | 6 m |
| Sub-array Separation | 6 m |
| COS to COS | single source |

| Recording Parameters | |
|-----------------------|--------------------------|
| Record Length | 10 |
| Total recording delay | 0 |
| Sample Rate | 1ms |
| Polarity | SEGD standard |
| Low-Cut | 3Hz digital, 4.7Hz total |
| Hi-Cut | 400Hz, 370dB/octave |
| File Format | SEGD |

| Description | FGSP | EOL/LGSP |
|-----------------|----------|----------|
| SP | 111417 | 113702 |
| Date MM/DD/YY | 06/29/22 | 06/29/22 |
| Time UTC | 18:20 | 01:47 |
| Volume (cu in.) | 3300 in3 | 3300 in3 |
| Wind (kts) | E 10 kts | S 9 kts |
| Sea State (m) | 1 m | 1 m |
| Water Depth (m) | 4129 m | 1476 m |

| Cable | Dead Channels |
|-------|-----------------------------------------|
| 1 | 141, 157, 189, 205, 213, 214 |
| | Noisy Channels: 149, 365, 477, 480, 513 |
| | Weak Channels: 358 |

| Auxiliaries | |
|-------------|----------|
| Aux. 1-3 | NFH GS 1 |
| Aux. 4-6 | NFH GS 2 |
| Aux. 7-9 | NFH GS 3 |
| Aux. 10-12 | NFH GS 4 |
| | |
| | |

| General / Line Comments |
|--------------------------------------------------------------|
| First 96 channels (4 sections): SSAS RD 6.25m spacing |
| Noise from ship passing behind tailbuoy, SP 112980 to 113300 |
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| Abbreviations | |
|--------------------------------|----------------------------|
| SOL/EOL - Start/End of Line | LGSP - Last Good SP |
| FGSP- First Good SP | LCSP - Last Chargeable SP |
| FCSP - First Chargeable SP | LFFSP - Last Full Fold SP |
| FOLSP - First Overlap SP | Fa - Feather Angle |
| BOT/EOT - Begin/End of Tape | SI - Seismic Interference |
| NDR - No Data Recorded | ITB - Imitation Time Break |
| NDR - No Data Recorded | ITB - Internal Time Break |
| N.T.B.P. - Not To Be Processed | |

