

Federal 8-89-31 #1 Natural Gas Well Project
Transportation Management Plan
SG Interests I Ltd.

The following transportation management plan is preliminary and as of the date of this writing, it is based primarily on transportation information contained in the Surface Use Plan of Operations submitted to the Bureau of Land Management in October of 2012. SG Interests anticipates revising this plan over the course of the federal permitting process. The final plan as accepted by the Bureau of Land Management and the USDA Forest Service will be provided to the Colorado Oil and Gas Conservation Commission when available. SG Interests expects to include in this final plan input from stakeholders in the area such as the City of Glenwood Springs, Garfield County, local school districts, emergency responders, other commercial users of the proposed access roads and others.

The following directions are used to access the well site. Based on a mile post survey conducted on 10/21/2012 by the White River National Forest Service the proposed well pad is approximately 13.8 miles along National Forest System Road (NFSR) 300 from intersection with County Road 117/NFSR 300 to intersection with NFSR 300.4K, then 2.8 miles along NFSR 300.4K to the proposed well pad. For additional information see figure 1.

Forest System Roads will be maintained as per USDA Forest Service specifications. SG Interests I, Ltd. will obtain a Road Use Permit from the Forest Service and any necessary performance and reclamation bonds as they pertain to roads prior to beginning drilling operations. If any roadwork is required, a work schedule will be submitted to the White River District Ranger before any work is started. The right-of-way width of existing roads will be maintained as they presently exist unless authority to widen is given by the White River District Ranger. Any damage to Forest System Roads, resulting from permittee's use will be repaired immediately. The operator will use water for dust control on Forest System Road 300. All conditions of the Road Use Permit will be followed by SG Interests I, Ltd.

All roads used in conjunction with this project will be maintained in as good or better condition as they were pre-project. SG will consider Gold Book and BLM Best Management Practices when improving or maintaining existing roads. Operations will cease, excepting emergencies, during periods when mud and silt cannot be contained within the road prism, or when construction specification cannot be achieved because of wet or frozen ground conditions. Vehicles will not be towed through the mud (except in approved emergency situations).

The operator will schedule heavy traffic periods, such as moving the rig in or out, to take place during the week if possible and not on weekends or holidays. All construction signage will be in compliance with the Manual of Uniform Traffic Control Devices. The operator will post warning signs on County Road 117 (Fourmile Road) and National Forest System Road 300 to alert the public of heavy truck traffic. The operator will use flagmen as necessary during drilling and related equipment moves on and off the drill site when utilizing public roads.

No new roads are being proposed at this time.

A portion of the existing graded Forest System Road 300.4K, which is located off of Forest Service System Road 300, will require improvements that will be determined by the Forest Service official. Approximately 2,850' of NFSR 300.4K, beginning at its intersection with NFSR 300, has been upgraded and maintained by Source Gas Energy Services Company in order to access Wolf Creek Unit #12 well. This portion of NFSR 300.4K will not likely need to be upgraded further for use in this project. Beyond this well pad, NFSR 300.4K is a relatively unmaintained road that continues approximately 2.2 miles to the project site (see figure 2). Maximum road gradients for the reconstructed segment of the road are shown in figures 3 - 7. SG Interests does not anticipate major cut and fill slopes will be required on road segment requiring reconstruction. Long-term stable cut slopes in most soils and geographic areas will typically be reconstructed with about a 1.5:1 (horizontal: vertical) slope. Fill slopes will be reconstructed with a 2:1 or flatter slope. Cut and fill

slopes will be such that stability can be maintained for the life of operations. Turnouts will not likely be necessary along the roadway for this project, but if required by the Forest Service, they will be constructed and used as directed. In flat areas, cut ditches will provide drainage on both sides of the road. If necessary, energy dissipaters, such as cobble, will be placed within the ditch to retard water velocities. As necessary, water bars or dips will be installed to allow drainage to pass across the road in a controlled fashion. Frequency of bars and dips will be determined using site specific criteria.

The following reconstructive measures will be implemented:

- All culverts will have flared end sections or rock inlet and outlet protection.
- All existing culverts will be extended, cleaned-out, and repaired if necessary.
- Catchment basins with rock armored outfalls as appropriate will be constructed at the culvert ends.
- The culvert diameter will be a minimum of 18" constructed of corrugated metal.

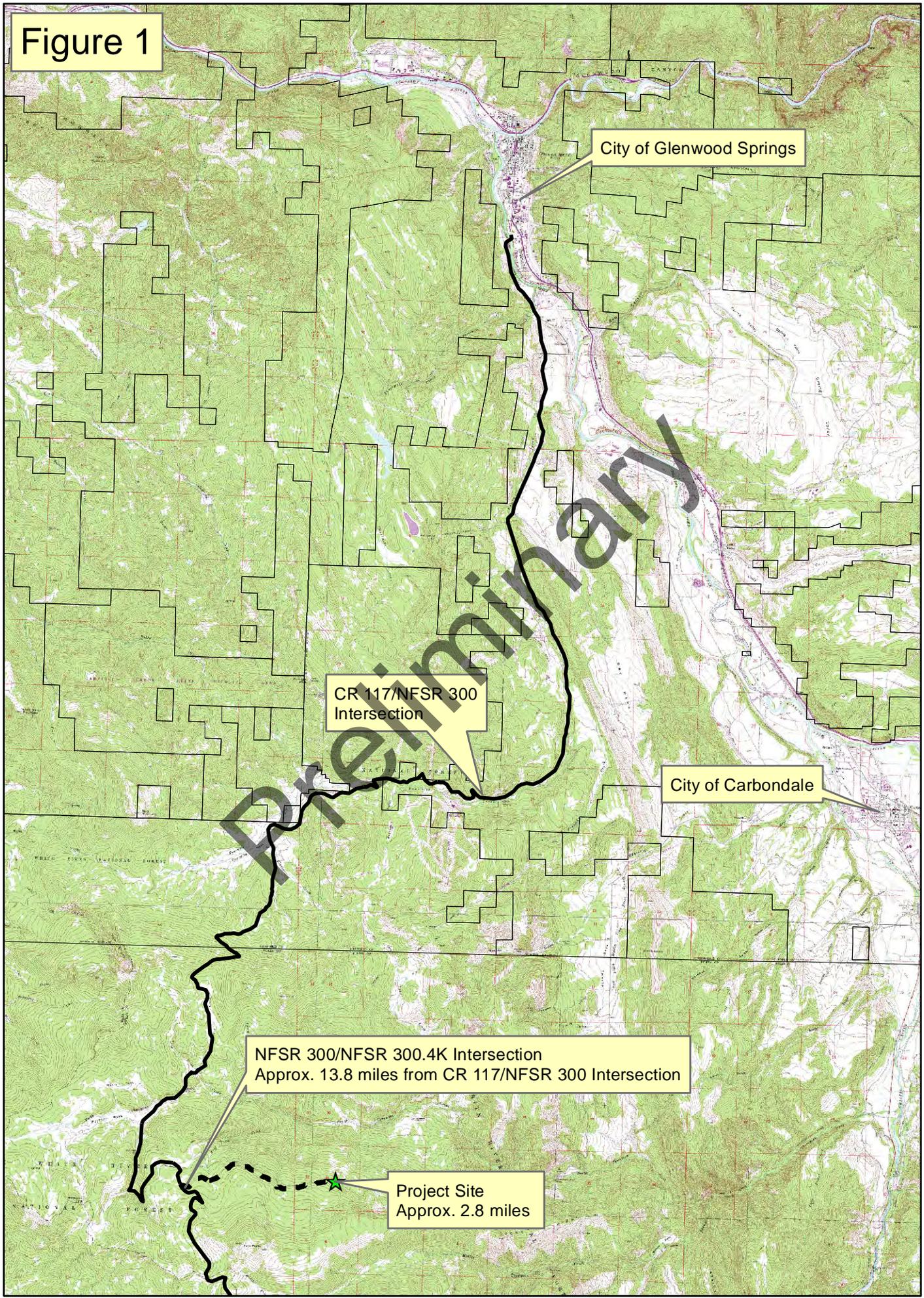
All construction will require erosion and stormwater control structures. A stormwater permit will be obtained from the Colorado Department of Public Health and Environment's (CDPHE) Water Quality Control Division. Structures will be designed to minimize run-on and run-off events. Primarily berms, silt fencing, and ditches will be utilized. A detention pond will be installed off the southeast corner of the pad, which will be sized based on field conditions post construction. All roads will have side barrow ditches or a single inside ditch for side hill sections. The well site plat includes the BMP's to be utilized for site specific concerns. The preferred treatment for fill slope, disturbed areas, and runoff control will be promptly seeding and revegetating the slopes and disturbed areas. Seed mixes will be per Forest Service direction and will be weed free. Cattle guards/fence cuts will be installed as per the Forest Service instruction. Culverts will be placed or upgraded as required by the Forest Service. Culverts will be designed for a minimum 25-year storm frequency with an allowable head that does not overlap the roadway or cause damage. The culvert diameter will be 18" constructed of corrugated metal (see figure 8).

The cut and fill areas resulting from creation of a level driving surface will be reclaimed as quickly as possible by returning topsoil to these areas and seeding them. Where practicable, SG Interests I, Ltd. will scatter woody vegetation over disturbed surfaces during reclamation to serve as mulch and to stabilize the surface.

During the course of work there may be periods of inclement weather which may have an effect on the control of dust on and off the well site. This could be due to long dry spells or periods of strong winds or both. If the above or similar conditions are encountered and have an effect on air quality, SG Interests I, Ltd. will apply water to disturbed areas as necessary to suppress dust. Application of an approved dust suppressant or watering is required to ensure resource protection and road user safety. The Forest Service and SG Interests will determine if and when dust abatement is necessary. The application of Magnesium Chloride ($MgCl_2$) or other dust suppressant agents may be required as a more effective material to reduce the amount of fugitive dust and to stabilize the surface. Application of $MgCl_2$ will not occur when rainfall is forecast and it will not be applied within 100 feet of streams.

Use of any NFSR shall be restricted to periods when the road surface is not saturated. The operator shall inquire with the Forest Service representative if road conditions are questionable and a determination of the road condition is needed.

Figure 1



City of Glenwood Springs

CR 117/NFSR 300
Intersection

City of Carbondale

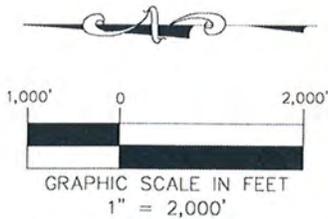
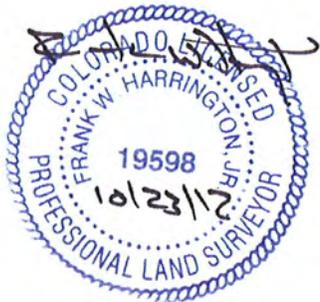
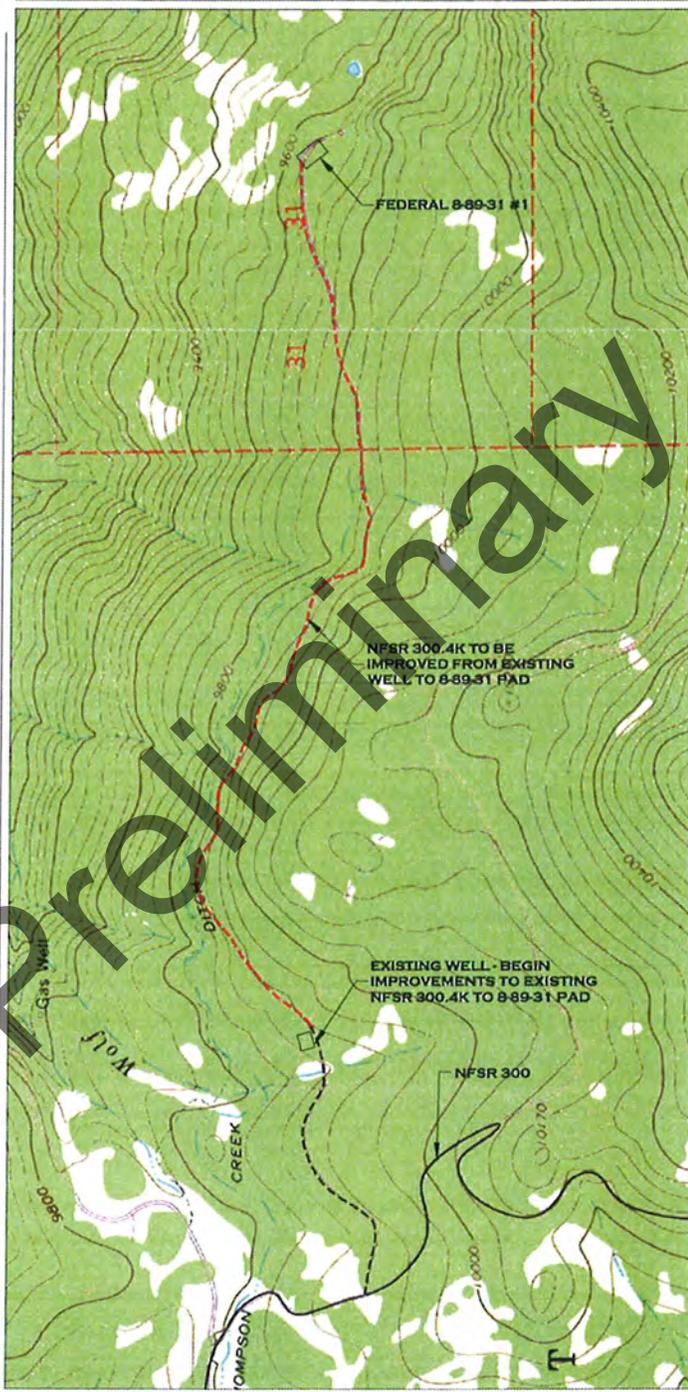
NFSR 300/NFSR 300.4K Intersection
Approx. 13.8 miles from CR 117/NFSR 300 Intersection

Project Site
Approx. 2.8 miles

SG INTEREST I, LTD.

FEDERAL 8-89-31 #1

SE1/4 OF SECTION 31, TOWNSHIP 8 SOUTH, RANGE 89 WEST OF THE 6TH P.M.
COUNTY OF PITKIN, STATE OF COLORADO



HIGH COUNTRY ENGINEERING, INC.



1517 BLAKE AVENUE, STE 101
GLENWOOD SPRINGS, CO 81601
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FAX (970) 945-2555
WWW.HCENG.COM

| | |
|--|---------------------------|
| DRAWN BY: RPK | SCALE: N/A |
| CHECKED BY: FWH | PROJECT NO: 2121655.02 |
| DATE: SEPTEMBER 6, 2012 | |
| FILE: J:/SDSKPROJ/212/1655-02/DWG/1655.02.DWG | |

WELL LOCATION PLAT PREPARED FOR: **SG INTERESTS I, LTD.**

FEDERAL 8-89-31 #1

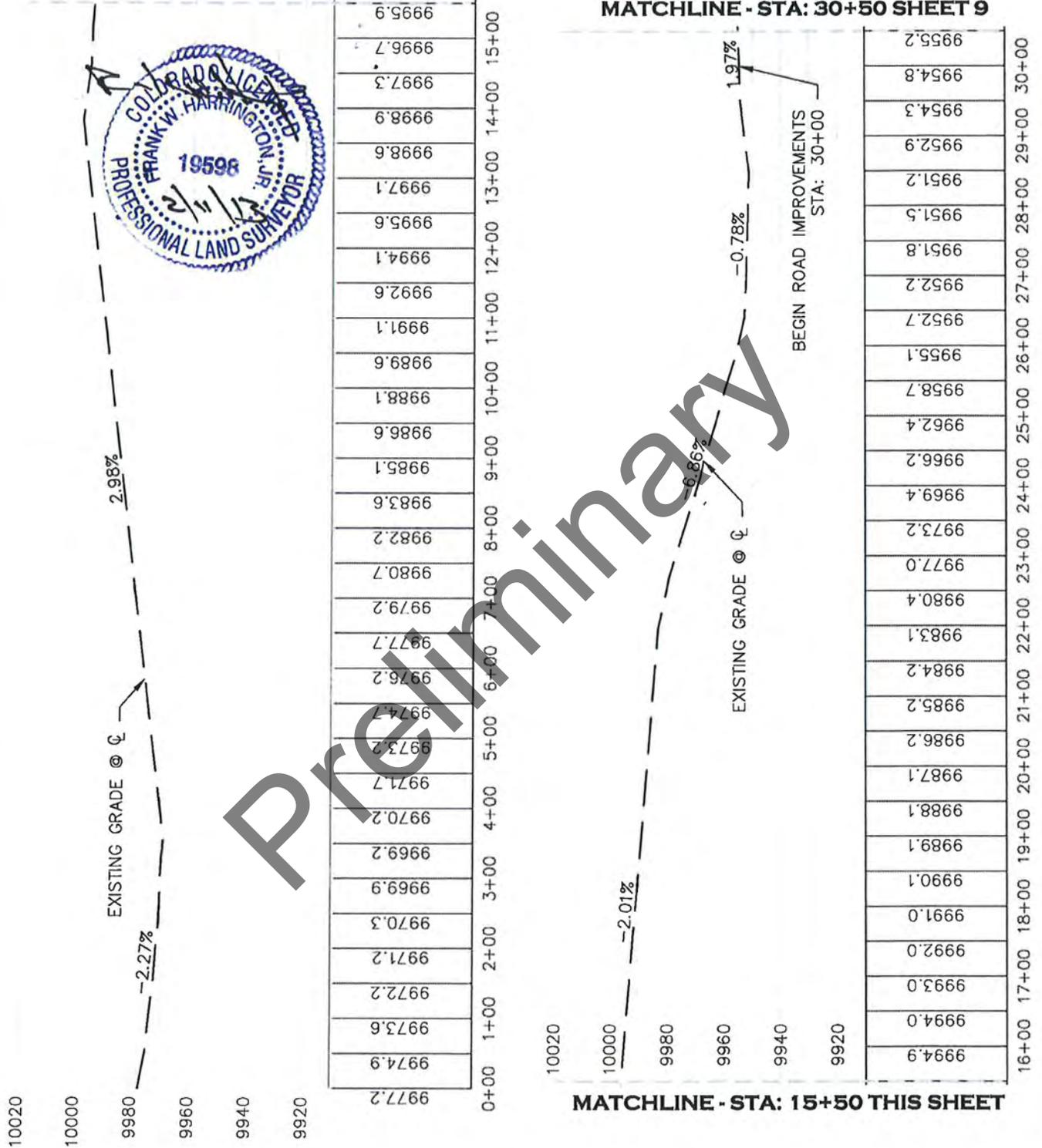
Figure #2

FEDERAL 8-89-31 #1

SE 1/4 OF SECTION 31, TOWNSHIP 8 SOUTH, RANGE 89 WEST OF THE 6TH P.M.

MATCHLINE - STA: 15+50 THIS SHEET

MATCHLINE - STA: 30+50 SHEET 9



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DRAWN BY: RPK SCALE: N/A
 CHECKED BY: FWH PROJECT NO: 2121655.02
 DATE: SEPTEMBER 6, 2012
 FILE: J:\SDSKPROJ\212\1655-02\DWG\1655.02.DWG

WELL LOCATION PLAT PREPARED FOR: **SG INTERESTS I, LTD.**

FEDERAL 8-89-31 #1
EXISTING ACCESS ROAD PROFILE

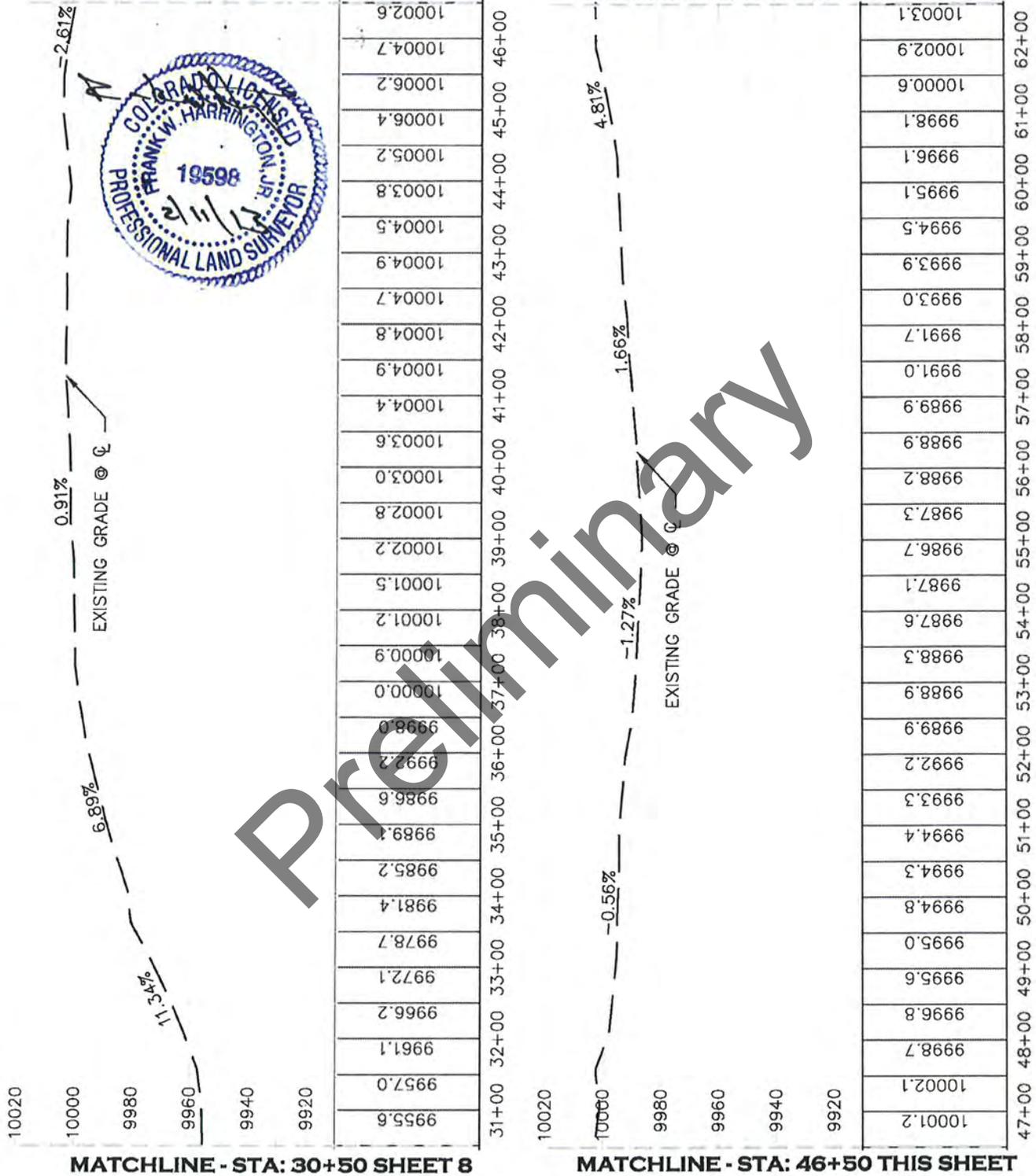
Figure #3

FEDERAL 8-89-31 #1

SE 1/4 OF SECTION 31, TOWNSHIP 8 SOUTH, RANGE 89 WEST OF THE 6TH P.M.

MATCHLINE - STA: 46+50 THIS SHEET

MATCHLINE - STA: 62+50 SHEET 10



MATCHLINE - STA: 30+50 SHEET 8

MATCHLINE - STA: 46+50 THIS SHEET

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 EXISTING ACCESS ROAD PROFILE**

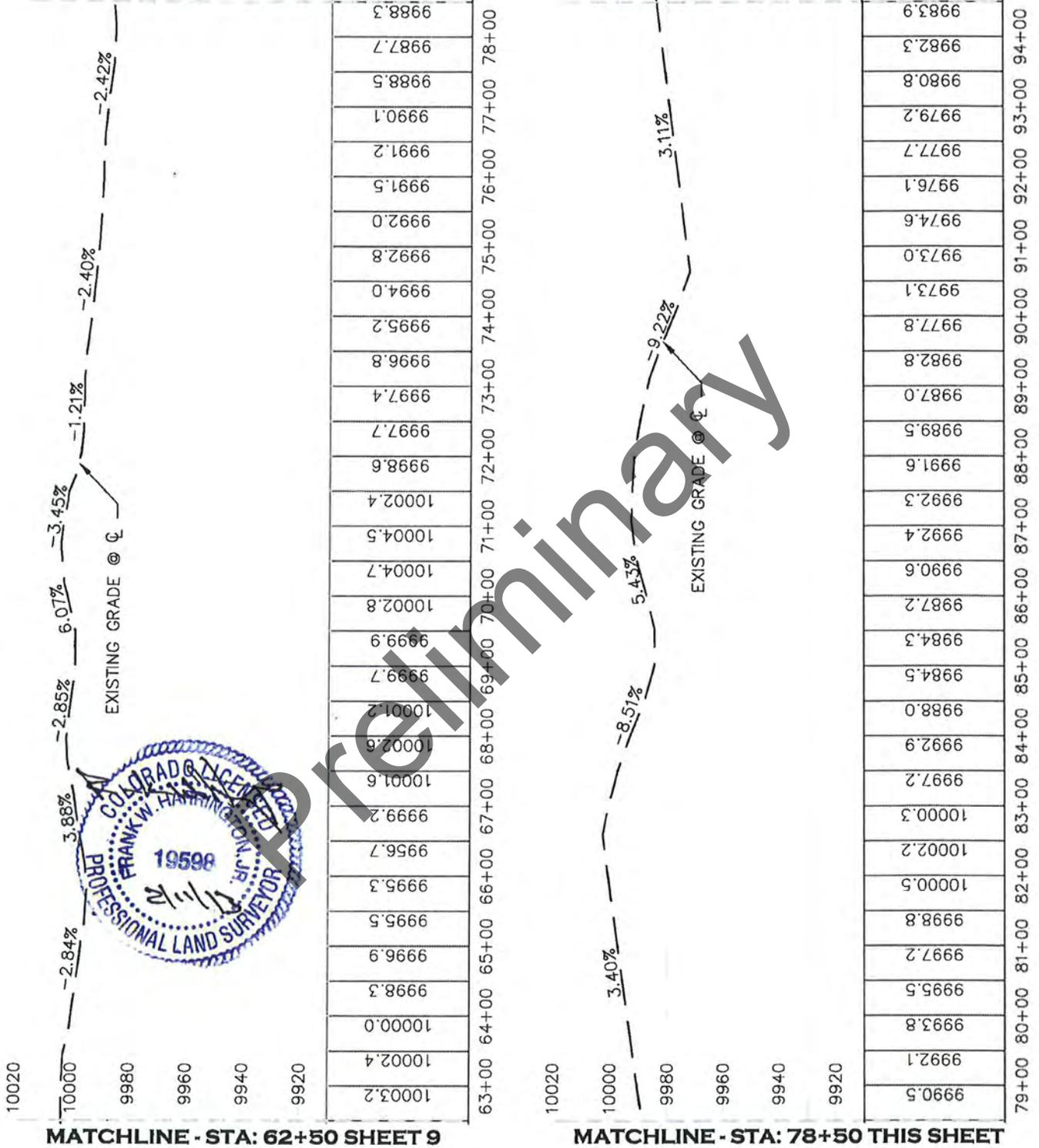
Figure #4

FEDERAL 8-89-31 #1

SE 1/4 OF SECTION 31, TOWNSHIP 8 SOUTH, RANGE 89 WEST OF THE 6TH P.M.

MATCHLINE - STA: 78+50 THIS SHEET

MATCHLINE - STA: 94+50 SHEET 11



MATCHLINE - STA: 62+50 SHEET 9

MATCHLINE - STA: 78+50 THIS SHEET

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SCALE: N/A
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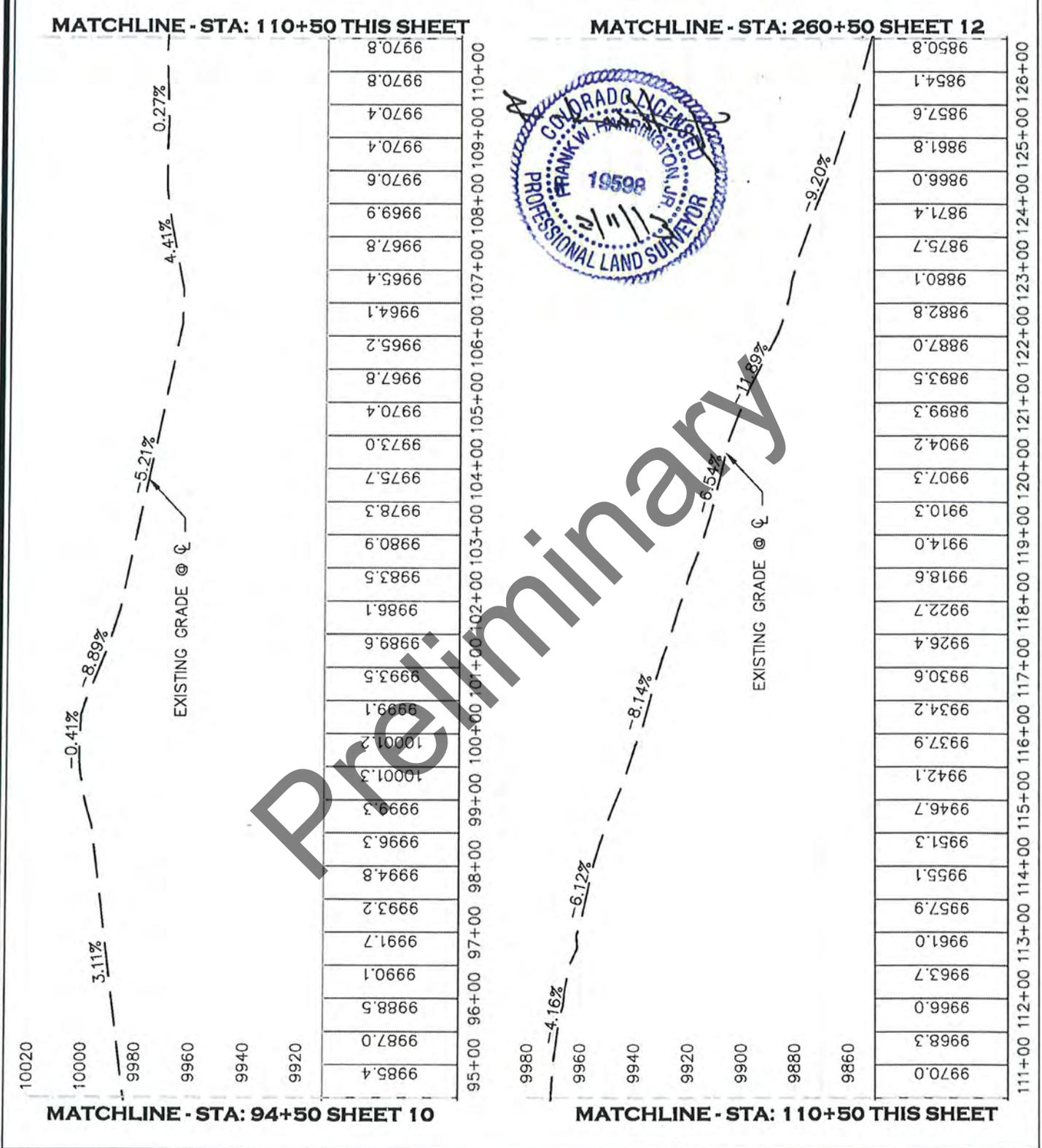
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FEDERAL 8-89-31 #1
EXISTING ROAD PLAN & PROFILE

Figure #5

FEDERAL 8-89-31 #1

SE 1/4 OF SECTION 31, TOWNSHIP 8 SOUTH, RANGE 89 WEST OF THE 6TH P.M.



Preliminary

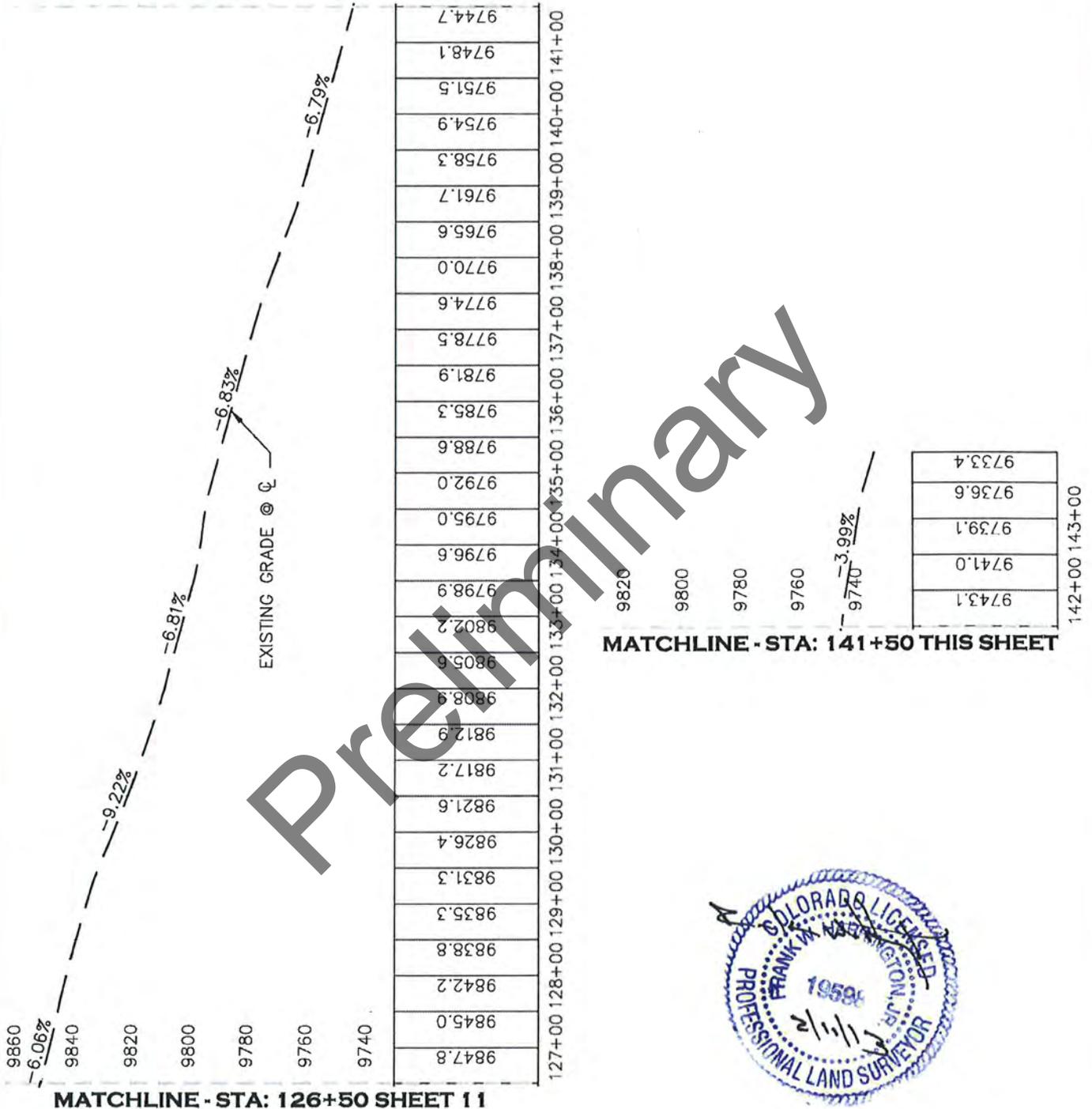
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|  | HIGH COUNTRY ENGINEERING, INC. | | DRAWN BY: RPK | SCALE: N/A | WELL LOCATION PLAN PREPARED FOR: SG INTERESTS I, LTD. | |
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| | | | DATE: SEPTEMBER 6, 2012 | | FEDERAL 8-89-31 #1 EXISTING ROAD PLAN & PROFILE | |
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Figure #6

FEDERAL 8-89-31 #1

SE 1/4 OF SECTION 31, TOWNSHIP 8 SOUTH, RANGE 89 WEST OF THE 6TH P.M.

MATCHLINE - STA: 141+50 THIS SHEET



MATCHLINE - STA: 126+50 SHEET 11

MATCHLINE - STA: 141+50 THIS SHEET

HIGH COUNTRY ENGINEERING, INC.



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| DATE: SEPTEMBER 6, 2012 | |
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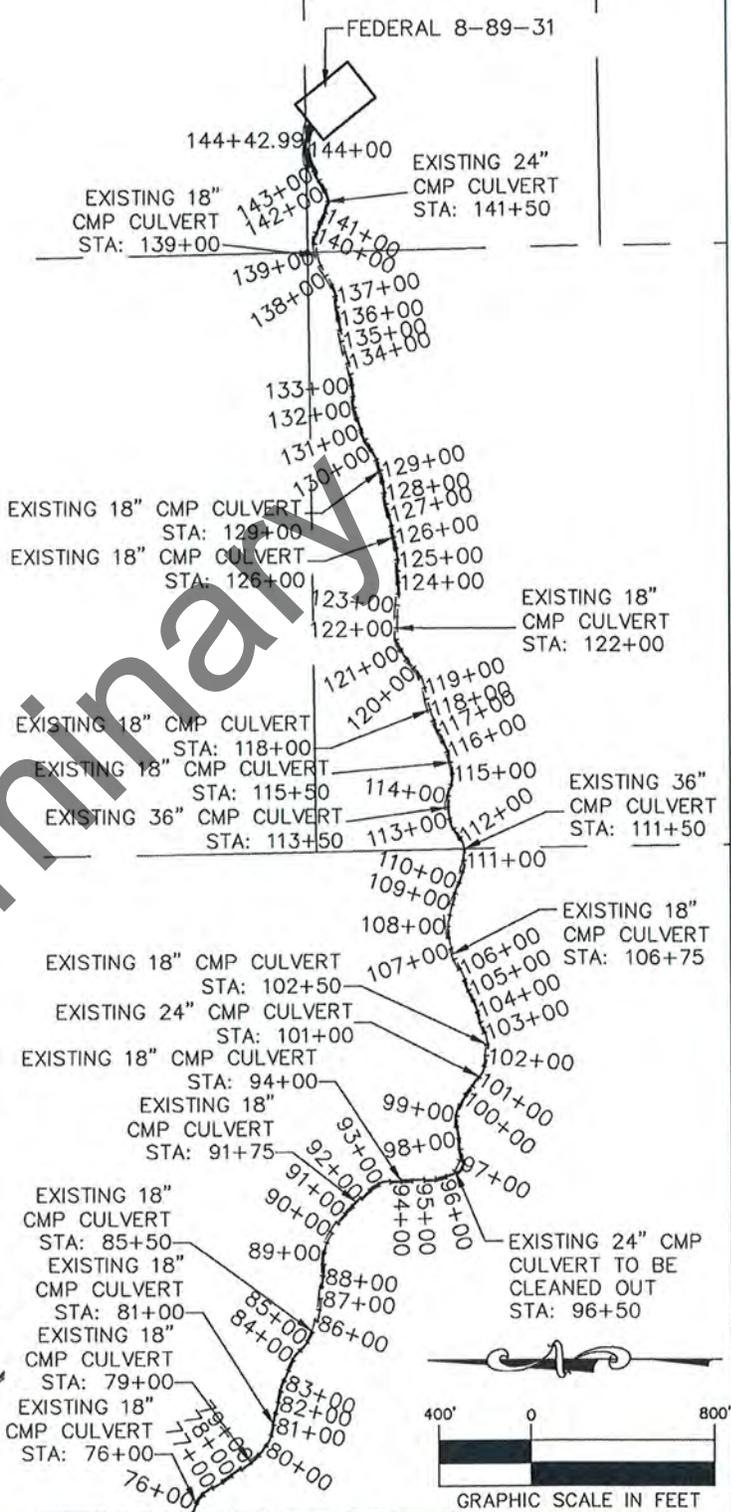
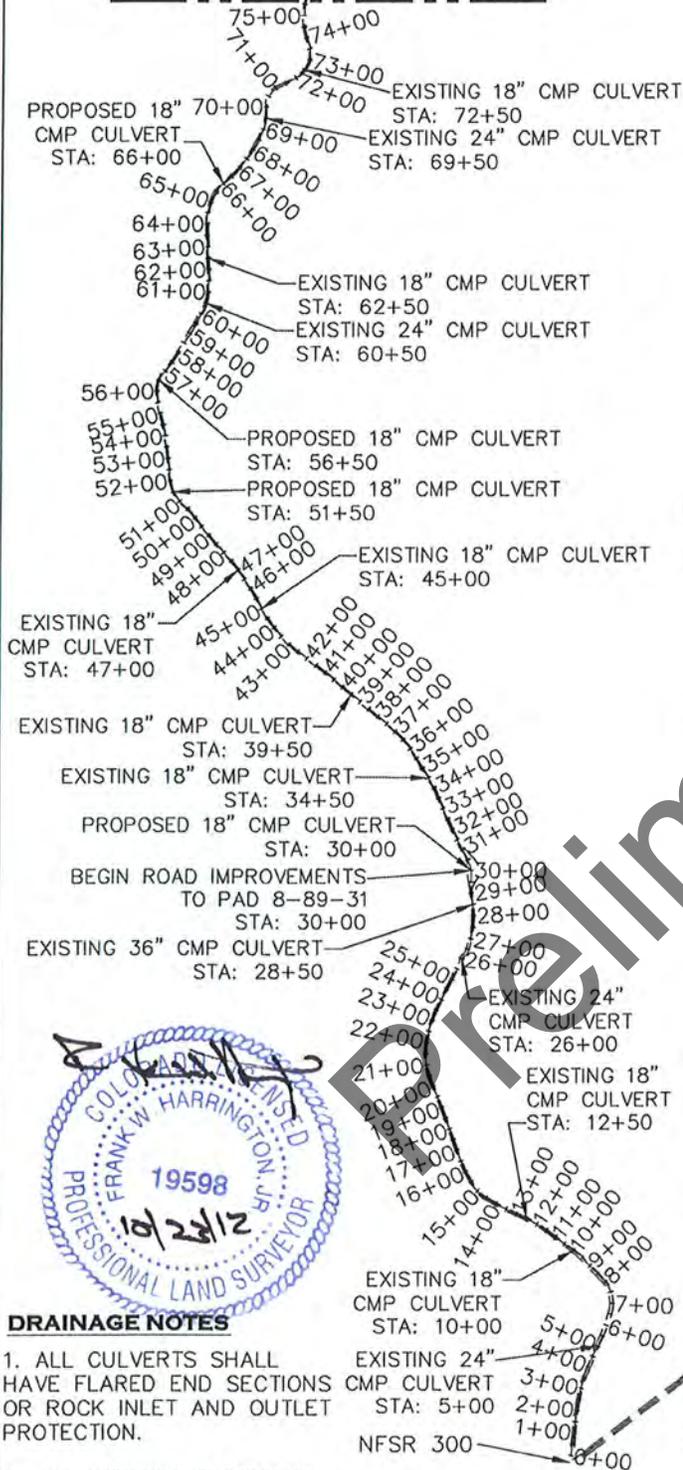
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| WELL LOCATION PLAT PREPARED FOR: | SG INTERESTS, INC. |
| FEDERAL 8-89-31 #1 EXISTING ROAD PLAN & PROFILE | |

Figure #7

FEDERAL 8-89-31 #1

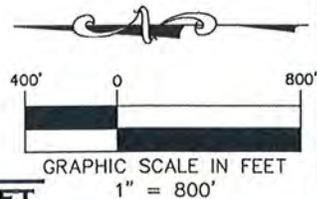
SE 1/4 OF SECTION 31, TOWNSHIP 8 SOUTH, RANGE 89 WEST OF THE 6TH P.M.

MATCHLINE - BELOW RIGHT



DRAINAGE NOTES

1. ALL CULVERTS SHALL HAVE FLARED END SECTIONS OR ROCK INLET AND OUTLET PROTECTION.
2. ALL EXISTING CULVERTS SHALL BE EXTENDED AS NECESSARY.



MATCHLINE - ABOVE LEFT

HIGH COUNTRY ENGINEERING, INC.



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**FEDERAL 8-89-31 #1
 EXISTING ACCESS ROAD PROFILE**

Figure #8