

LEASE NUMBER -
FEE

12 POINT SURFACE USE PLAN

EMERALD 97X

API# applied for with COGCC

LOCATED IN

RANGELY WEBER SAND UNIT

2339 FNL 2613 FEL (SW NE) Section 26, T2N, R103W, 6th PM

RIO BLANCO COUNTY, COLORADO

CHEVRON USA, Inc
EMERALD 97X

JANUARY 9, 2012

LAT / LONG 40.114872/ -108.923558

1. EXISTING ROADS

See attached Topographic Map "A" & "B" and attached full Rangely Weber Sand Unit (COC 47675X) field map referenced as "ROAD MAP". Please note on "Addendum to Legal Plat" this location will be built just off the existing lease road.

To reach CHEVRON proposed **EMERALD 97X** location - Proceed west out of Rangely, Colorado on Colorado State Highway 64 approximately 5.1 miles, turn SOUTH on Chevron lease road, proceed 1.6 miles to well location.

All of the improved surface roads in the area are maintained by Chevron or its subcontractors. This maintenance consists of some minor grade work for smoothing of road grades and for snow removal by road maintainers with dozer blades and other contractor's equipment as required.

Chevron will follow guidelines from BLM Gold book Road Maintenance page 30, "Maintenance activities normally required include monitoring, blading, surface replacement, dust abatement, spot repairs, slide removal, ditch cleaning, culvert cleaning, litter cleanup, noxious weed control, and snow removal. When applicable, specific areas shall be identified in the road maintenance plan for disposal of slide material, borrow or quarry sites, stock piles, or other uses that are needed for the project. Key maintenance considerations include regular inspections; reduction of ruts and holes; maintenance of crowns and out slopes to keep water off the road; replacement of surfacing materials; clearing of sediment blocking ditches and culverts.."

Copies of BLM Manual 9113 have been distributed to Chevron facility engineers and Chevron facility reps to utilize for any new road construction and maintenance standards. Chevron will build and maintain roads to 9113 standards.

2. PLANNED ACCESS ROAD

See Topographic Map "B".

The planned access road is along an existing lease road – no new roads lease will need to be constructed. The proposed access road will be about 400' long by 20' wide or approximately 0.25 acres. On the existing lease roads there are no major cuts, a center crown to the road will allow for drainage to side ditches that will be excavated to a depth of 1 foot minimum below the finished road surface. The well location access road is clearly clear marked on TOPO Map B. Pit run will be used for road surfacing material. Pit run is ordered and supplied by Ace West Trucking Inc (970-675-2753) 15762 Hwy 64, Rangely, CO 81648 and / or Urie Rock Company (970-675-5766) 2424 East Main, Rangely, CO 81648. There are no fences on the property. Installing gates, cattle guards, or cutting fences will not be required. The terrain that is traversed by this road is relatively flat and is vegetated with sparse amounts of sagebrush and grasses. Turn outs will not be required.

BLM approval shall be requested to continue operations should the surface become saturated to a depth of three (3) inches.

3. EXISTING WELLS See Topographic Map "C" with attached well list.

There are numerous wells within a one mile radius of this location. COGCC mapping shows a total of 48 active wellbores in the one mile radius. Attached is a full list of all wells within the one mile radius, list is from the COGCC website. No wells will be used for water source or for monitoring.

4. LOCATION OF EXISTING AND PROPOSED FACILITIES

There will be ONE flow line. (see TOPO D). The flowline will transport hydrocarbon fluids from the new well to existing COLLECTION STATION 6 east of wellsite. This flow line would consist of 4 inch fiberglass pipe rated at 1000 psi. The flowline would run about 1970" feet in length and would be constructed and installed in a trench. Pipe line will be buried 4 feet below the active channel bottom of all drainage channels. A typical right of way would be 20 foot either side of staked markers at a depth of 42 inches. Fee surface only. The right of way will be fully reclaimed to current BLM specifications and stipulations. No additional Sundry notification will be submitted for this line, approval will be assumed with the approval of the **EMERALD 97X** 3160-3.

All existing facilities maps are on file with the BLM – Meeker office. A complete set is of the oil (FLOWLINES), water (PROD. WATER) and gas (LP GAS GATHERING) gathering system maps can be resubmitted if requested. All the produced fluids will be transported via pipeline to the collection station (Collection Station #6) to the east.

All permanent facilities placed on the location will be painted Carlsbad Canyon Brown to blend with the natural environment. The well cellar will be covered with steel grating and no hazards will exist for livestock or wildlife.

Updated geospatial data was emailed to Brett Smither with BLM on 1/9/2012

5. LOCATION OF AND TYPE OF WATER SUPPLY AND FUEL GAS

Fresh water required for boilers and other needs will be trucked from Chevron's Main Water Treatment Plant. Chevrans Main Water Treatment Plant is located at NESE Section 32,T2N,R102W, 6TH P.M. A quarter of a mile off Colorado Hiway 64 on a Chevron owned lease road. Water will trucked from the Water Plant 4 and half miles East on Hiway 64 to the **Emerald 97x** location lease road turn off to the North, then 3 miles to the well site. Please see attached "Roads" map, the route is highlighted in green. The estimated amount of water to be used during construction (minimal - 100 bbls), drilling (3000 bbls), fracing (10,000 bbls) and dust abatement (1500 bbls).

Diesel fuel for the drilling rig generators will be kept on location in a properly installed above ground diesel tank. (See "TYPICAL RIG LAYOUT - FUEL TRAILER"). Containment area will be engineered to contain 110% of calculated volumes.

There will be no water well drilled on the location to support the water needs for this well.

6. SOURCE OF CONSTRUCTION MATERIALS

Extra gravels, sand, or road base will be acquired from Ace West Trucking Inc, 15672 US Hwy 64, Rangely 675-2753 gravel pits, which are privately owned or leased from the Bureau of Land Management (BLM).

7. METHODS FOR HANDLING WASTE DISPOSAL

A closed - loop drilling system will be utilized, using a cuttings catch pit, dewatering system, centrifuge system and additional fluid storage. The cuttings pit (reserve pit as indicated on Figure #3) will be **11** feet deep, **30** feet wide, and **130** feet long with 10 foot wide bench with a 1 1/2 :1 slope. The cuttings will be placed in a pit on site and buried.

The construction of this cuttings pit will be constructed to BLM Gold Book standards; the pit will not be located in any natural water course. The pit will be constructed totally in the cut, with at least 50 percent of the pit below ground level, and the dike will be properly compacted. No liner will be used for the cuttings pit. Cuttings will be buried in the cutting pit, with 3 feet of fill. Prior to burial of cuttings, if any (none anticipated) liquid oil or water will be trucked to the Chevron Main Water Plant, to be filtered, separated and water will be re- injected into the Weber formation. Oil will be skimmed at the Main Water Plant and pipelined to an oil gathering collection station. Minimal materials will be taken to RNI (see contact information below) for disposal (such as frac sand cleaned out during completion). The pits will be fenced with 32" to 48" high woven wire to protect wildlife and domestic animals. Netting will be installed to prevent access by migratory birds. After the completion rig finishes, and the reserve pit is covered then the surface is contoured to conform to surrounding terrain.

Any waste products will be handled by RN Industries, 244 West Hwy 40, Roosevelt, Utah 84066 435-722-2800.

Trash will be confined in a covered container. After the rig is moved off the location the well site will be cleaned and all refuse removed by Rangely Trash Service 675-2878, and hauled to the approved landfill in Rio Blanco County.

A portable toilet will be supplied for human waste. Redi Services LLC, 235 County Rd 15, Meeker Colorado 970-878-4444 services toilets and removes portable toilet waste.

8. ANCILLARY FACILITIES

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

9. WELL SITE LAYOUT - See Figure #1 & Figure #2

The White River Resource Area Manager shall be notified 24 hours in advance before any construction begins on the proposed location site.

Weldon's Construction (Bret Weldon 435-789-3324) company will be contracted to build well pad using graders, dozers and dump trucks, any extra gravels, sand, or road base will be acquired from Ace West Trucking Inc, 15672 US Hwy 64, Rangely 675-2753 gravel pits. Facility engineers plan to bury a French drain in the diversion ditch on the north side of location. The ditch would be backfilled with gravel and sloped to ensure drainage. Division ditches will be run on the west side of location to ensure proper drainage. See Figure #4. Site map indicates the topsoil stock pile area to be seeded with BLM approved mix, and placement of diversion ditch w/ check dams. Best Management Practices, are outlined on the SWMP, along with the estimated surface disturbance. Wells site disturbance estimated to be 1.6 acres.

Please note there are no drilling rig anchors planned for this drilling location. Rig anchors will be installed after the well is drilled and the drilling rig leaves well site. Placement of the anchors to be determined by Benco Anchor Service Company based on well site soil conditions and the traffic flow to the new well and completion rig specifications.

10. PLANS FOR RESTORATION OF SURFACE

Plan for cutting pit reclamation – Cuttings will be buried in the cutting pit, with 3 feet of fill. Prior to burial of cuttings, any liquid oil or water will be trucked to the Chevron Main Water Plant. Test will be performed to insure soil meets COGCC 910-1 standards and all requirements stipulated in COGCC Rule 1003.d.

Clean up and rehabilitation operations will begin as soon as the well is completed and within the time frames and requirements established under COGCC Rules 1003 and 1004 for Interim and Final Reclamation.

Plan for interim reclamation see **Figure #6**– Interim reclamation consists of minimizing the footprint of disturbance by reclaiming those portions of the well site not needed for production operations. All disturbed areas affected by drilling or subsequent operations, except areas reasonably needed for production operations, shall be reclaimed as part of the interim reclamation process. The portion of the well site not needed for operations and safety purposes is to be re-graded to a final or intermediate contour that blends with the surrounding topography as much as possible. In addition, pad reclamation is accomplished by replacing stockpiled top soil, construction of sediment and erosion controls, and seeding of disturbed areas to reestablish cover vegetation. The access roads will be maintained as necessary to prevent soil erosion, and accommodate year round traffic. Maintenance activities will include blading of the road to remove ruts, surface replacement, spot repairs, ditch cleaning, and snow removal. Maintenance of crowns and outcrops to keep water off the road.

Sediment controls will typically dominate the early stages of reclaiming disturbed areas impacted by construction. As the reclamation work proceeds and the contour of the site are completed, more permanent structural and non-structural BMPs will be implemented to control erosion and re-establish vegetation.

Selection of BMPs is dependent on site specific conditions including soil types, topography, and other environmental factors including proximity to surface waters and surrounding vegetation. A summary of the BMPs typically utilized is provided in the attached Appendix. The attachment includes information on specific BMPs including where and when to use them, their limitations, along with construction details and maintenance requirements. APPENDIX – Rangely Weber Sand Unit – Typical Storm –Water Best Management Practice (BMP) Details. (The document has been digitally submitted to BLM WRFO and is on file).

Re-vegetation efforts will include re-contouring disturbed areas not needed for well production to blend with surrounding topography and re-spreading topsoil to an adequate depth. The seedbed will be prepared by disking following the natural contour. Drill seed on contour at a depth no greater than 1/2 inch. In areas that cannot be drilled, broadcast at double the seeding rate and harrow seed into soil. Certified seed - BLM approved - as represented - will be used..

BLM Seed mix #1, #3, #8 or #9.

SEED MIX #1 FROM THE RECLAMATION PROTOCOL			
Common Name	Scientific Name	Variety	Lbs PLS/Acre
Western wheatgrass	<i>Pascopyrum smithii</i>	Rosana	4.5
Thickspike wheatgrass	<i>Elymus lanceolatus</i>	Critana	3.5
Bottlebrush squirreltail	<i>Elymus elymoides</i>	Toe Jam Creek	3
Scarlet Globemallow	<i>Sphaeralcea coccinea</i>		0.5
Sulphur Downy	<i>Erigeron umbellatus</i>		1.5
Winterfat	<i>Krascheninnikovia lanata</i>		0.5

SEED MIX #3 FROM THE RECLAMATION PROTOCOL			
Common Name	Scientific Name	Variety	Lbs PLS/Acre
Western wheatgrass	<i>Pascopyrum smithii</i>	Rosana	4
Bluebunch wheatgrass	<i>Pseudoroegneria spicata</i>	Whitmar	3.5
Indian ricegrass	<i>Achnatherum hymenoides</i>	Rimrock	3
Needle and Thread	<i>Hesperostipa comata</i>		2.5
Lewis Flax	<i>Linum Lewisii</i>	Maple grove	1
Scarlet Globemallow	<i>Sphaeralcea coccinea</i>		0.5

SEED MIX #8 FROM THE RECLAMATION PROTOCOL			
Common Name	Scientific Name	Variety	Lbs PLS/Acre
Galletta Grass	<i>Pleuraphis juncea</i>	Viva florets	3
Indian Ricegrass	<i>Achnatherum hymenoides</i>	Kimrock	3
Bottlebrush squirreltail	<i>Elymus elymoides</i>	Toe Jam Creek	2.5
Western wheatgrass	<i>Pascopyrum smithii</i>	Rosana	4
Scarlet Globemallow	<i>Sphaeralcea coccinea</i>		0.25
Annual sunflower	<i>Helianthus annuus</i>		2.5
Mud saltbush	<i>Atriplex confertifolia</i>		2

SEED MIX #9 FROM THE RECLAMATION PROTOCOL			
Common Name	Scientific Name	Variety	Lbs PLS/Acre
Western wheatgrass	<i>Pascopyrum smithii</i>	Rosana	5
Russian wildrye	<i>Psathyrostachys juncea</i>	Bozinsky	3
Crested wheatgrass	<i>Agropyrum cristatum</i>	Hycrest	3
Annual sunflower	<i>Helianthus annuus</i>		5

Re-vegetation efforts will also include the treatment of weeds by a contracted weed sprayer, Rocky Mountain Weed Management, 970-675-5656. The site will be kept free of State listed A&B noxious weeds and weeds/invasive species up until the Final Reclamation of the location is attained and approved.

All Storm Water Discharge Permitting Regulations and BMP's currently required by the State of Colorado will be strictly complied with, including all inspection and ongoing BMP maintenance requirements. To minimize sedimentation of drainage channels and wetlands during the interim period between construction activity and final reclamation, temporary erosion and sediment control measures should be applied." Secondary containment area will be utilized in chemical and product storage areas using earthen berm and dikes that will be engineered to handle 150% of calculated volumes per Chevron policy. The Rangely Weber Sand Unit - Spill Prevention Control and Countermeasure Plan has been submitted to BLM WRFO and is on file.

Plan for final reclamation: Following the production life of the well site, all production facilities will be removed and the site reclaimed and contoured to conform to the surrounding terrain. All excavations and pits must be closed by backfilling when they are dry and free of waste. The White River Resource Area Manager will be notified at least 24 hours prior to commencing reclamation work.

The well(s) will be plugged and abandoned in accordance with COGCC requirements to protect freshwater aquifers. Chevron will notify the WRFO 24 hours prior to any final reclamation activities. Rig anchors will be pulled and removed from location. The access road will be reshaped as closely as possible to the original contour, covered with topsoil, and reseeded.

Storm water BMPs will be utilized in the reclamation efforts to control sediment runoff and erosion. Selection of BMPs is dependent on site specific conditions including soil types, topography, and other environmental factors including proximity to surface waters and surrounding vegetation. A summary of the BMPs typically utilized is provided in the attached Appendix. The attachment includes information on specific BMPs including where and when to use them, their limitations, along with construction details and maintenance requirements.

The well pad will be restored and re-vegetated as soon as practicable. Topsoil is to be re-spread over the entire disturbed site to ensure successful re-vegetation. The top soiled site will be prepared to provide a seedbed for re-establishment of vegetation. The seedbed will be prepared by disking following the natural contour. Drill seed on contour at a depth no greater than 1/2 inch. Fall seeding must be completed after September 1, and prior to prolonged ground frost.

Final reclamation (COGCC Rule 1004) will be completed once a uniform vegetative cover has been established that reflects pre-disturbance or reference area forbs, shrubs, and grasses with a total percent plant cover of at least 80% of pre-disturbance levels.

II. SURFACE OWNERSHIP

A check of the records indicates that the surface owner is Rangely & Raven Patented Placer Claims c/o Whiting Petroleum, 3820 West Saratoga Ave, Littleton, CO 80123 (303)837-1661

12. OTHER INFORMATION

a) The Chevron will contact either the petroleum engineer or petroleum engineering technician 24 hours prior to the following operations:

- Construction of well site
- spudding (including dry hole digger or rat hole rig)
- running and cementing of all casing strings
- pressure testing of BOPE or any casing string
- Surface reclamation work.
- commencing completion operations.

b) Chevron will be responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. During operations, if discoveries of any cultural remains, monuments or sites, or any object of antiquity subject to the Antiquities Act of June, 1906 (34 Stat. 225; 16 U.S.C. Secs 431-433), the Archaeological Resources Protection Act of 1979 (PL 96-95), and 43 CFR, Part 3, operations will immediately cease and will be reported directly to the Area Manager. In cases where salvage excavation is necessary, the cost of such excavation shall be borne by the Operator, unless otherwise agreed upon. There are no known archeological, historic, or cultural sites in the immediate area. Much of the Unit area, over the past ninety three years, has been subjected to surface disturbance by roads, pipelines, and other producing surface facilities, and the probability of finding any artifactual remains or architecture of archeological significance is remote. An archeological study of the Rangely Unit area has been conducted and clearance given. c) Pursuant to 43 CFR 10.4(g) Chevron will notify the authorized officer (AO), by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4 (c) and (d), Chevron will stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer. d) If paleontological materials (fossils) are uncovered during project activities, Chevron will immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating paleontological site damage.

e) An H2S Contingency Plan for this field is on file with the BLM. - Copy of the "Chevron Drilling - RWSU COC47675X Hydrogen Sulfide Contingency Plan" is included with this permit.

13. LESSEE'S OR OPERATOR'S REPRESENTATIVE and CERTIFICATION

**Application for Permit to Drill
Certifying Statement**

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in the APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S. C. 1001 for the filing of false statements.

Executed this Day: 1/9/2012

Name: [Signature]

Printed Name: Jeff Roedell

Position Title: Technical Team Leader

Address: 100 Chevron Road, Chevron Rd, Rangely CO 81648

Telephone: 970-675-3816

Field Representative: Luke Allred – Operations Supervisor

Address: 100 Chevron Rd, Rangely CO

Telephone: 970-675-3846



LEGEND:



CHEVRON U.S.A., INC.

EMERALD #97X & #98X

SECTION 26, T2N, R103W, 6th P.M.

SW 1/4 NE 1/4

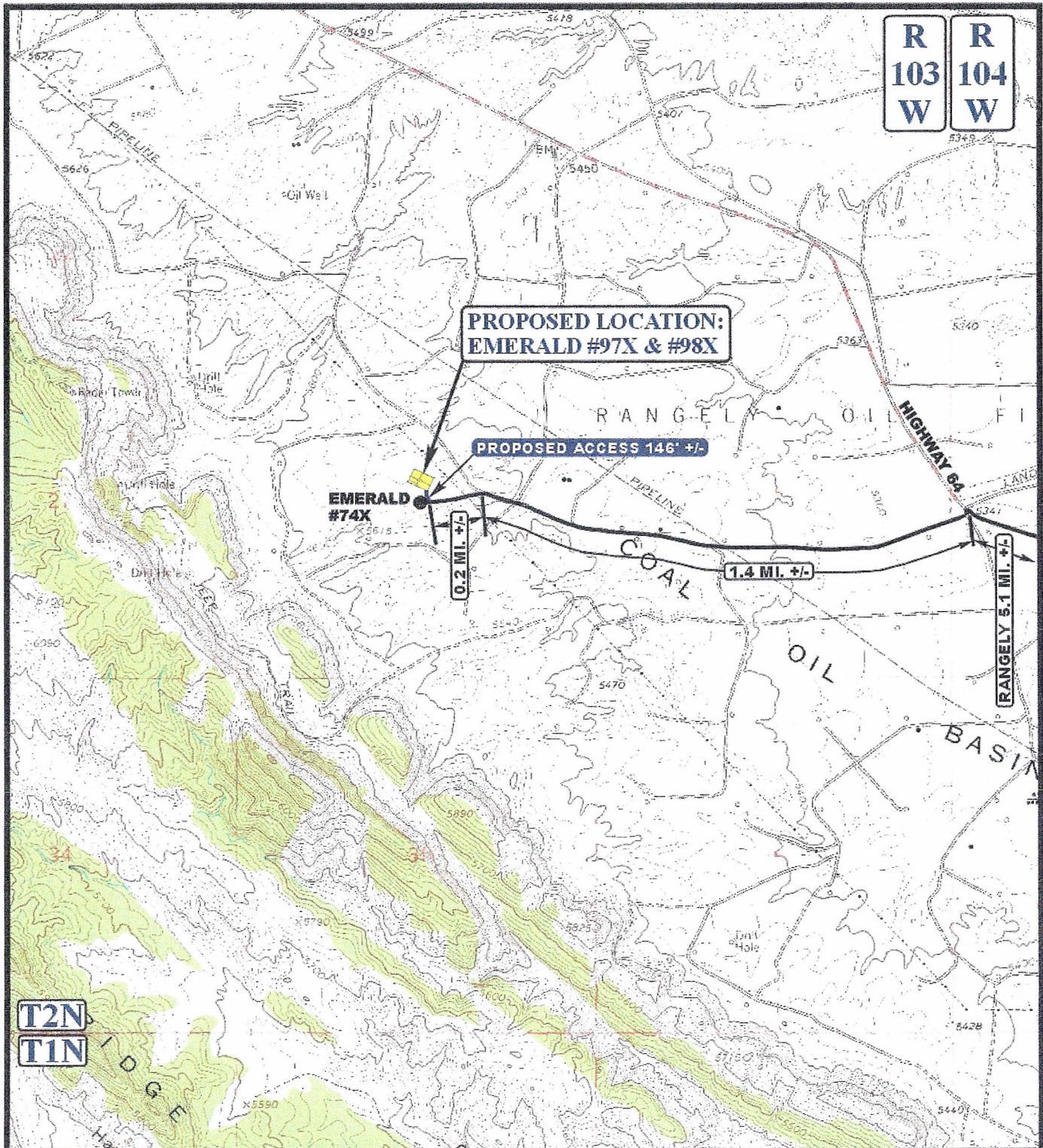


Utah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

CHEVRON U.S.A., INC.
EMERALD #97X & #98X
SECTION 26, T2N, R103W, 6th P.M.

PROCEED IN A NORTHWESTERLY DIRECTION FROM RANGELY, COLORADO ALONG HIGHWAY 64 APPROXIMATELY 5.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN LEFT AND PROCEED IN A WESTERLY, THEN NORTHWESTERLY DIRECTION APPROXIMATELY 1.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN LEFT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE NORTHWEST; FOLLOW ROAD FLAGS IN A NORTHWESTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 146' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM RANGELY, COLORADO TO THE PROPOSED LOCATION IS APPROXIMATELY 6.7 MILES.



LEGEND:

— EXISTING ROAD
- - - PROPOSED ACCESS ROAD



CHEVRON U.S.A., INC.

EMERALD #97X & #98X
SECTION 26, T2N, R103W, 6th P.M.
SW 1/4 NE 1/4



Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

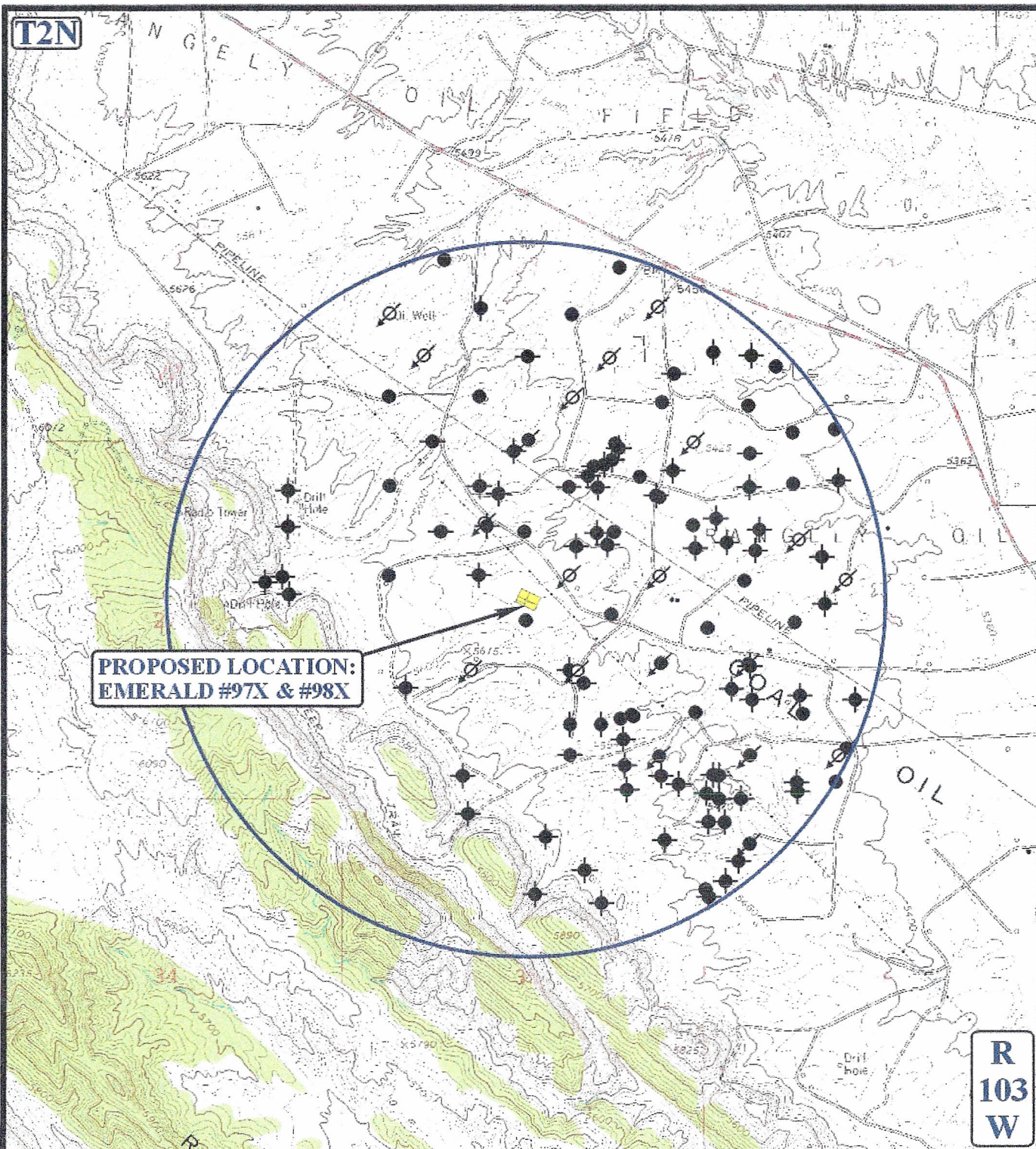
**ACCESS ROAD
MAP**

11 14 11
MONTH DAY YEAR



SCALE: 1" = 2000' DRAWN BY: S.F. REVISED: 00-00-00

T2N



R
103
W

LEGEND:

- Ø DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

CHEVRON U.S.A., INC.

EMERALD #97X & #98X
SECTION 26, T2N, R103W, 6th P.M.
SW 1/4 NE 1/4



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85 South 200 East Vernal, Utah 84078
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TOPOGRAPHIC
MAP

11 **14** **11**
MONTH DAY YEAR

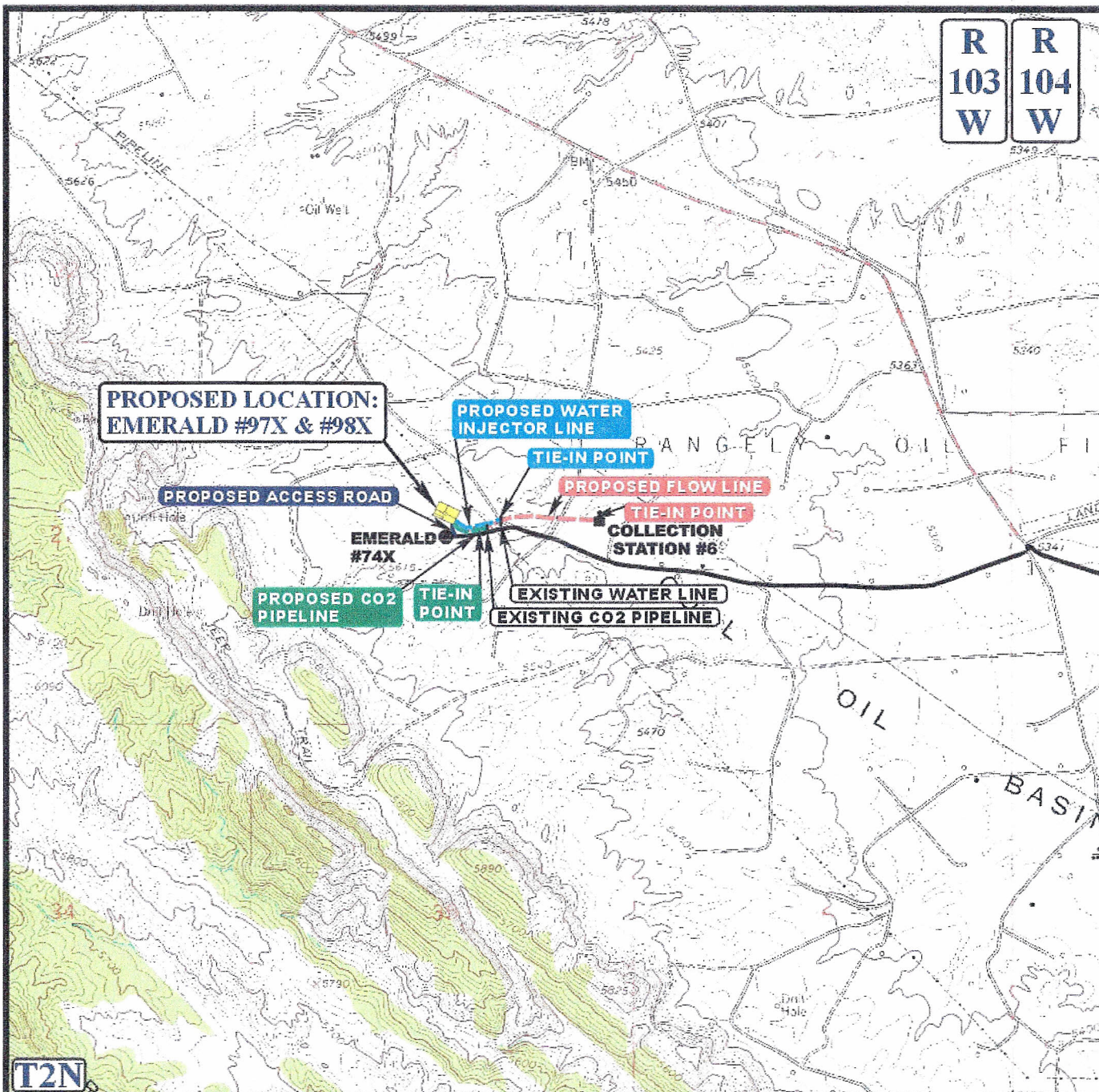
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	WELL DESCRIPTION	LOCATION	
1	05-103-05481, EMERALD 25	NWNW 36	6830 IJ
2	05-103-05589, EMERALD 23	SWSW 25	6573 IJ
3	05-103-05590, EMERALD 8	NESE 26	6628 IJ
4	05-103-05592, STOFFER, C R A-2	SWSE 26	7008 PR
5	05-103-05627, STOFFER, C R A-1	NWSE 26	6622 IJ
6	05-103-05636, EMERALD 13	SENE 26	6575 IJ
7	05-103-05653, EMERALD 27	SWNW 25	6537 TA
8	05-103-05661, EMERALD 9	SWNE 26	6670 IJ
9	05-103-05662, EMERALD 10	NENE 26	PR
10	05-103-05663, LARSON, M B A-2-26	SWNW 26	7300 PR
11	05-103-05671, EMERALD 11	NWNE 26	PR
12	05-103-05673, STOFFER, C R B-1	NWNW 26	6705 PR
13	05-103-05677, EMERALD 17	SESE 26	6650 IJ
14	05-103-05689, S B LACY 3	SWSW 24	6635 PR
15	05-103-05690, LARSON, M B C-2	SESE 22	6759 SI
16	05-103-05691, HAGOOD L N A-8	SWSE 23	6630 IJ
17	05-103-05693, A.C. MCLAUGHLIN (RE-ENTRY 11)	SESW 23	PR
18	05-103-05694, HAGOOD L N A-6	SESE 23	6600 PR
19	05-103-05699, MCLAUGHLIN 28	SWSW 23	PR
20	05-103-07022, HAGOOD L N A-9X	SWSE 23	6630 PR
21	05-103-07739, EMERALD 58X	SENE 26	6667 PR
22	05-103-07740, EMERALD 59X	SWNE 26	PR
23	05-103-07798, EMERALD 60X	NENE 26	6655 PR
24	05-103-07803, EMERALD 61X	NESW 25	6631 PR
25	05-103-07811, EMERALD 62X	NENE 26	PR
26	05-103-07910, RIGBY A 3X	SESW 24	6613 PR
27	05-103-07947, LACY S B 6X	NWSW 24	6617 PR
28	05-103-07991, HAGOOD L N A-13X	SWSE 23	6728 IJ
29	05-103-07992, EMERALD 64X	NENE 26	6687 IJ
30	05-103-08043, NEAL 8X	SENE 25	6669 IJ
31	05-103-08169, EMERALD 74X	SWNE 26	PR
32	05-103-08481, EMERALD 76X	SWSW 25	SI
33	05-103-08491, EMERALD 78X	NESE 26	6727 PR
34	05-103-08492, EMERALD 82X	NENW 26	6821 IJ
35	05-103-08765, EMERALD 83X	NWSW 25	6726 TA
36	05-103-08766, EMERALD 88X	NENE 26	6745 PR
37	05-103-08772, EMERALD 86X	SESW 25	6700 PR
38	05-103-08773, EMERALD 87X	SESW 25	6721 TA
39	05-103-08955, EMERALD 79X	SESE 26	6800 PR
40	05-103-09120, E A NEAL 9Y	NENW 25	6660 PR
41	05-103-09144, S.B. LACY 11Y	SESE 23	6755 PR
42	05-103-09145, S.B. LACY #12Y	SWSW 24	6712 PR
43	05-103-09146, EMERALD 90X	NENW 26	PR
44	05-103-09147, EMERALD 91Y	NWNW 25	6701 PR
45	05-103-11397, M.B. LARSON C 4	SESE 22	6880 PR
46	05-103-11429, MB LARSON C 5	SESE 22	2092 PR

47	05-103-11855, EMERALD 94X	SESE 26	6795 PR
48	05-103-11858, EMERALD 93X	SESE 26	6428 PR

R 103 W R 104 W



T2N

APPROXIMATE TOTAL CO2 PIPELINE DISTANCE = 468' +/-

APPROXIMATE TOTAL WATER INJECTOR LINE DISTANCE = 696' +/-

APPROXIMATE TOTAL FLOW LINE DISTANCE = 1,970' +/-

LEGEND:

PROPOSED ACCESS ROAD
EXISTING PIPELINE
PROPOSED PIPELINE
PROPOSED PIPELINE (SERVICING OTHER WELLS)

CHEVRON U.S.A., INC.

EMERALD #97X & #98X
SECTION 26, T2N, R103W, 6th P.M.
SW 1/4 NE 1/4



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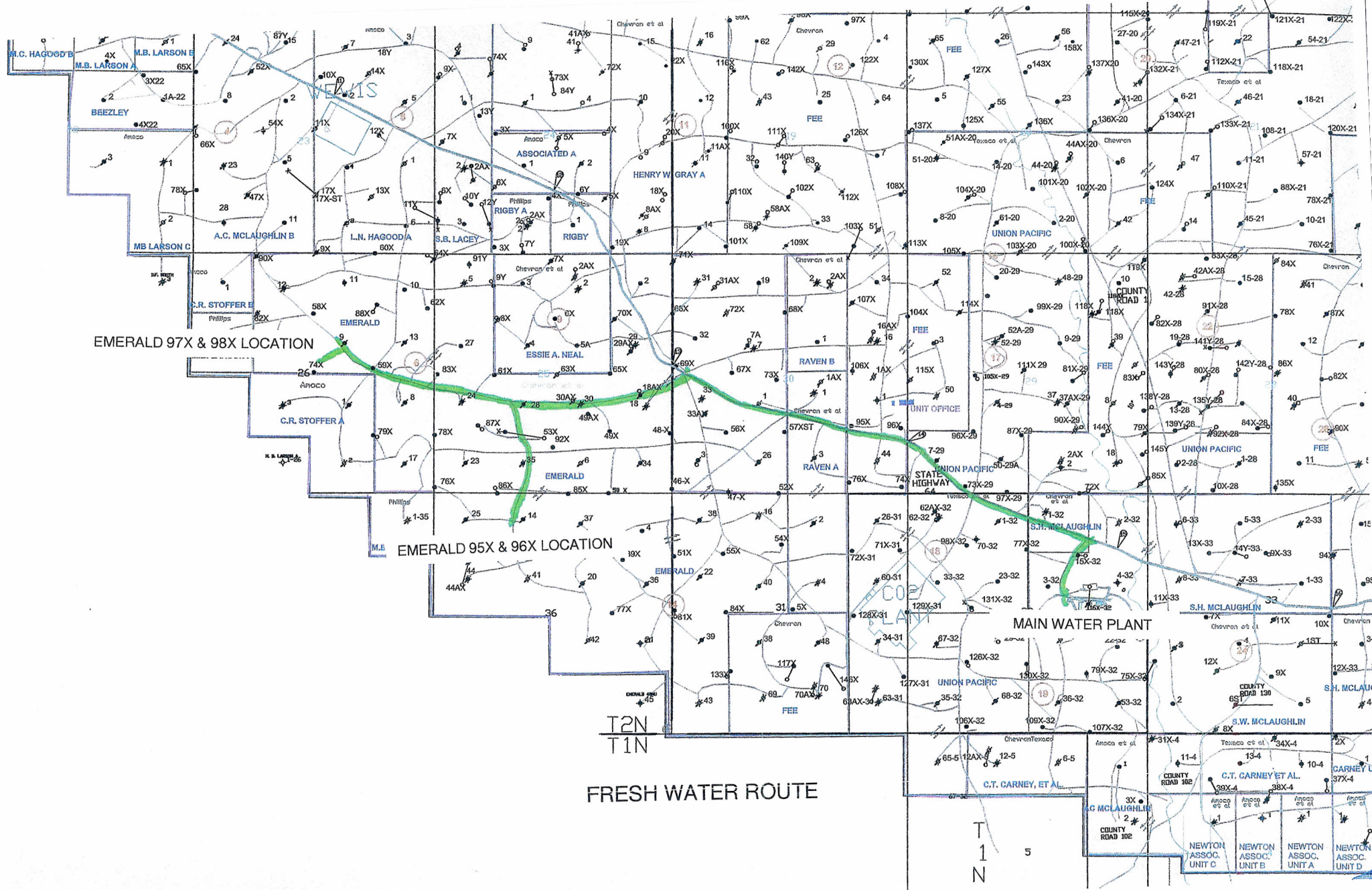


TOPOGRAPHIC
MAP

11 14 11
MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: S.F. REVISED: 00-00-00

D
TOPO



EMERALD 97X & 98X LOCATION

EMERALD 95X & 96X LOCATION

FRESH WATER ROUTE

MAIN WATER PLANT

T2N
T1N

T1N
5

CHEVRON U.S.A., INC.

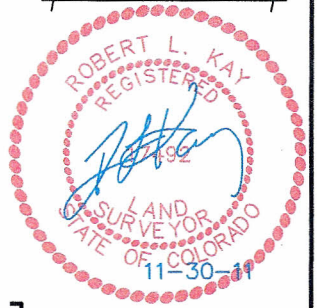
TYPICAL RIG LAYOUT FOR

EMERALD #97X & #98X
SECTION 26, T2N, R103W, 6th P.M.
SW 1/4 NE 1/4

FIGURE #3

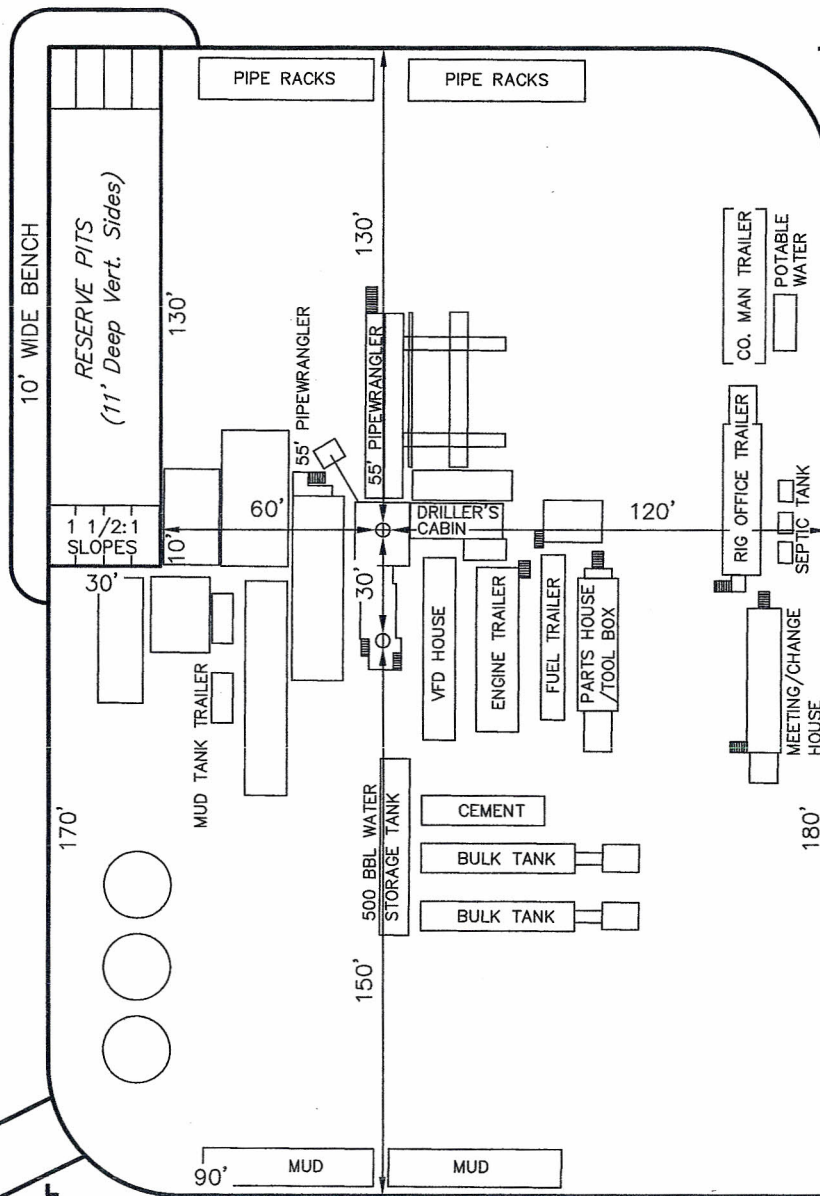


SCALE: 1" = 50'
DATE: 11-09-11
DRAWN BY: S.B.



Total Pit Capacity
W/2' of Freeboard
= 5,800 Bbls.±
Total Pit Volume
= 1,510 Cu. Yds

NOTE:
Flare Pit is to be
located a min. of 100'
from the Well Head.



CHEVRON U.S.A., INC.

CONSTRUCTION LAYOUT FOR

EMERALD #97X & #98X

SECTION 26, T2N, R103W, 6th P.M.

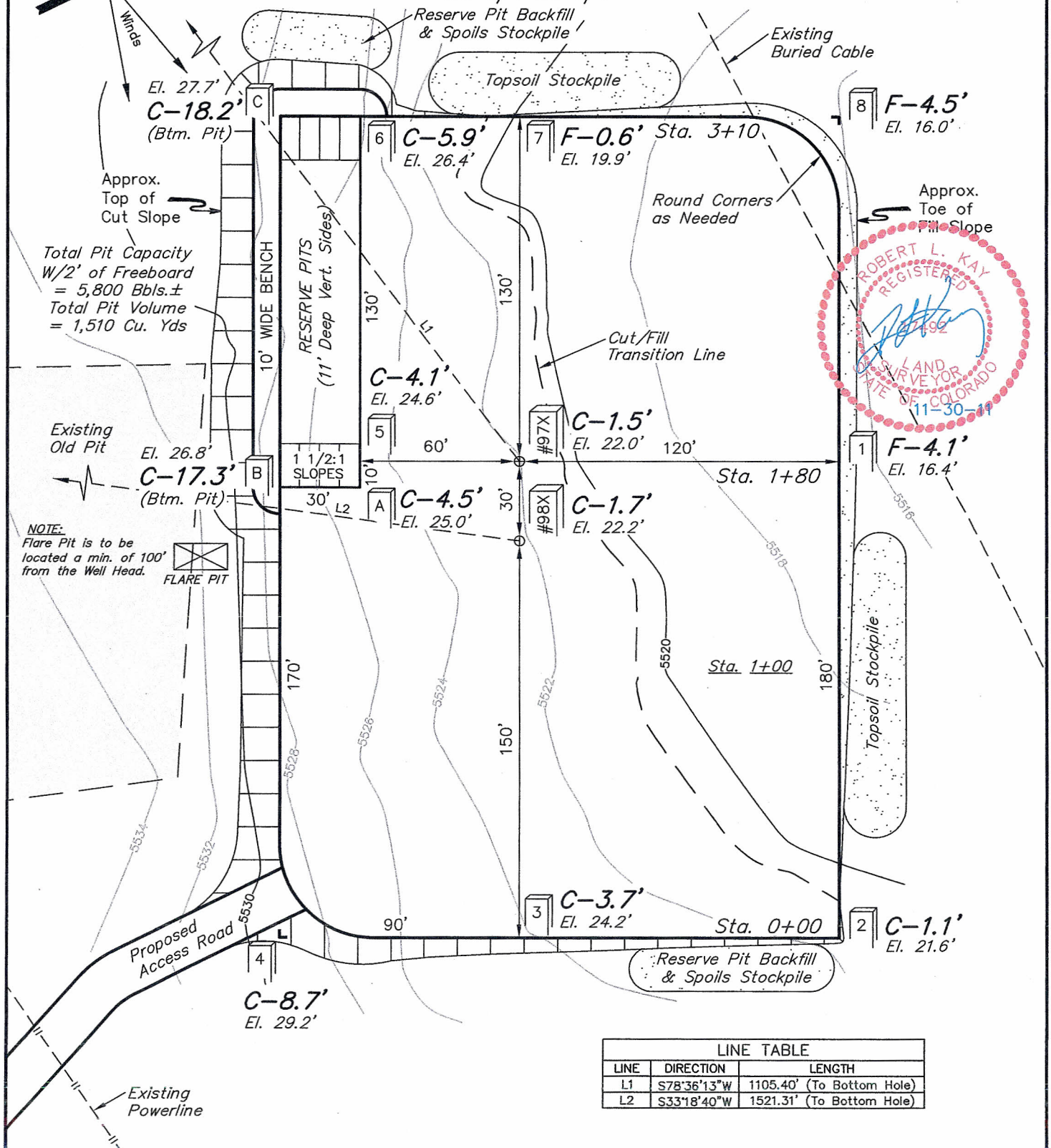
SW 1/4 NE 1/4

FIGURE #1

SCALE: 1" = 50'

DATE: 11-09-11

DRAWN BY: S.B.



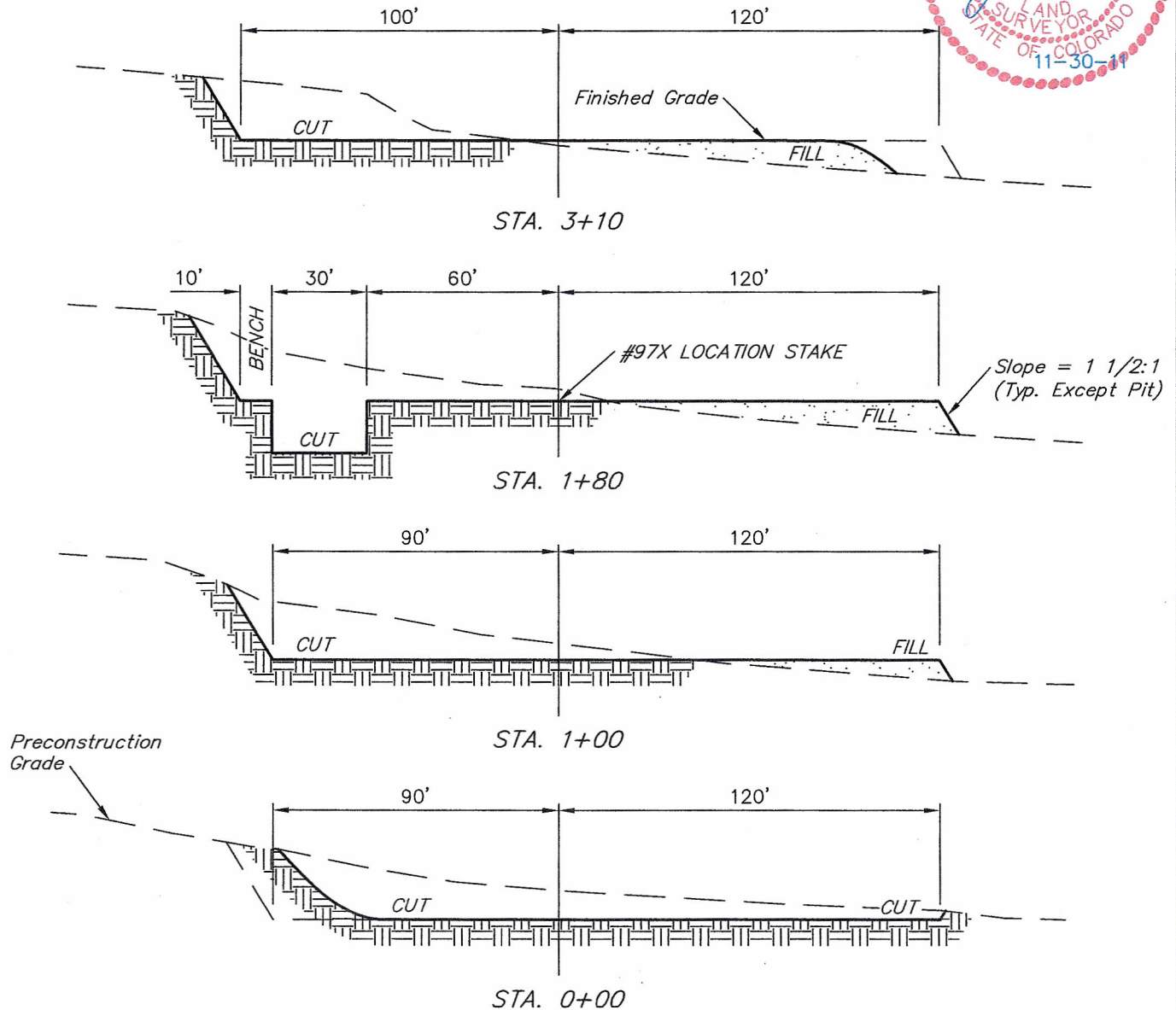
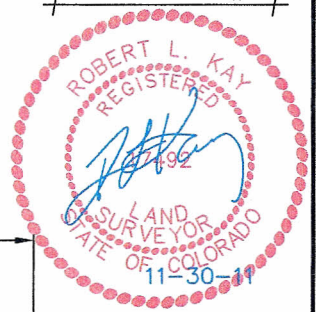
Elev. Ungraded Ground At #97X Loc. Stake = 5522.1'
FINISHED GRADE ELEV. AT #97X LOC. STAKE = 5520.5'

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1" = 20'
X-Section
Scale
1" = 50'
DATE: 11-09-11
DRAWN BY: S.B.

CHEVRON U.S.A., INC.
CONSTRUCTION LAYOUT CROSS SECTIONS FOR
EMERALD #97X & #98X
SECTION 26, T2N, R103W, 6th P.M.
SW 1/4 NE 1/4

FIGURE #2



NOTE:

Topsoil should not be Stripped Below Finished Grade on Substructure Area.

APPROXIMATE ACREAGES
WELL SITE DISTURBANCE = ± 1.885 ACRES
ACCESS ROAD DISTURBANCE = ± 0.101 ACRES
PIPELINE DISTURBANCE = ± 2.158 ACRES
TOTAL = ± 4.144 ACRES

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

(6") Topsoil Stripping = 1,470 Cu. Yds.
Remaining Location = 6,800 Cu. Yds.
TOTAL CUT = 8,270 CU.YDS.
FILL = 2,880 CU.YDS.

EXCESS MATERIAL = 5,390 Cu. Yds.
Topsoil & Pit Backfill = 3,160 Cu. Yds.
(1/2 Pit Vol.)
EXCESS UNBALANCE = 2,230 Cu. Yds.
(After Interim Rehabilitation)

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SCALE: 1" = 50'
DATE: 11-09-11
DRAWN BY: S.B.

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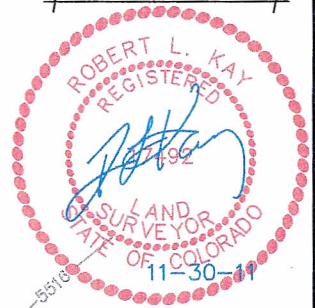
RECLAMATION DIAGRAM FOR

EMERALD #97X & #98X

SECTION 26, T2N, R103W, 6th P.M.

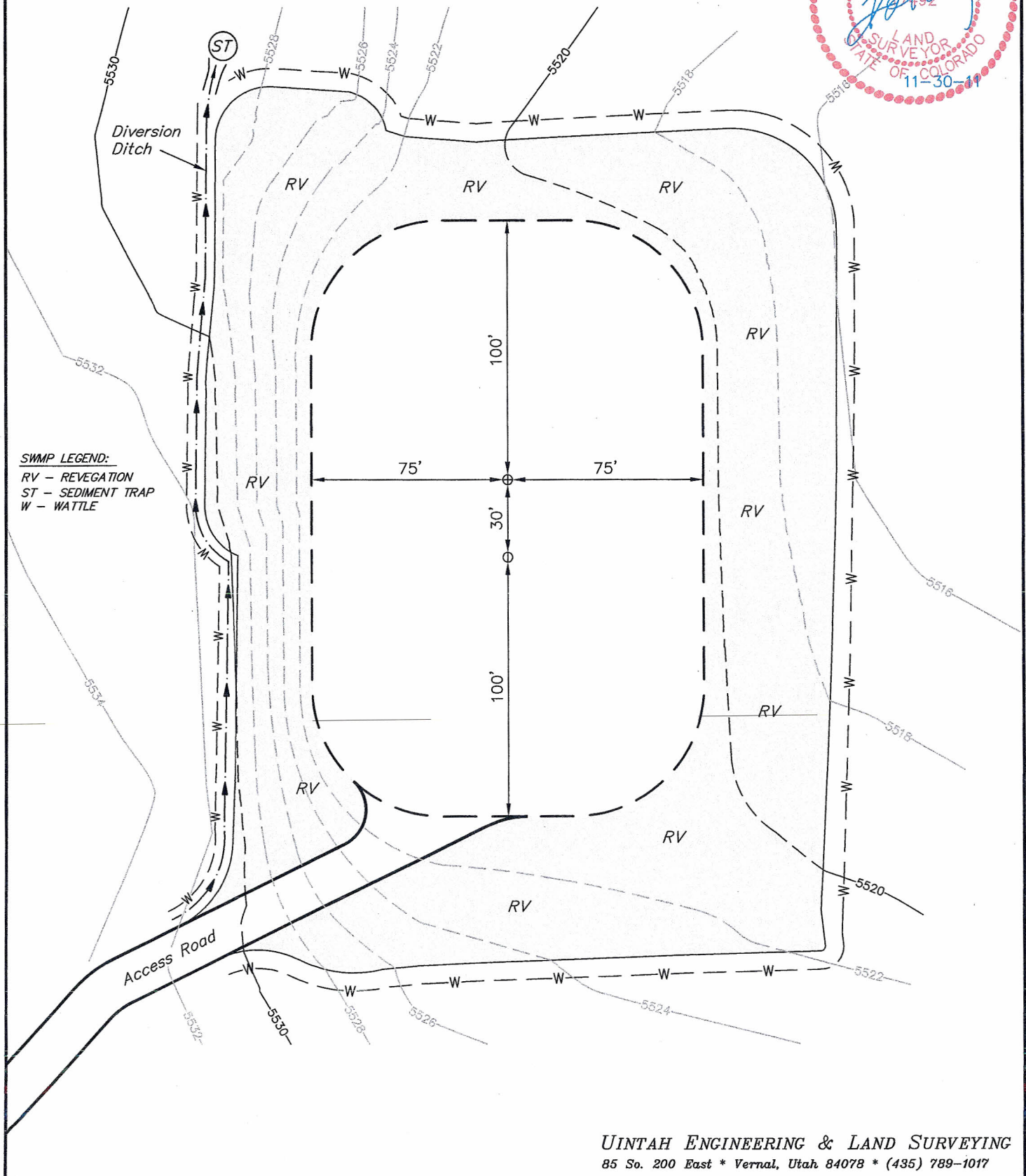
SW 1/4 NE 1/4

FIGURE #6



SWAMP LEGEND:

RV - REVEGATION
ST - SEDIMENT TRAP
W - WATTLE



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