

RESERVE #3-65 34-35 OIL & GAS WELL PERMIT

SECTION 35, TOWNSHIP 3 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF AURORA, ADAMS COUNTY, STATE OF COLORADO
 LATITUDE = 39°45'07.25"N, LONGITUDE = 104°37'25.40"W

GENERAL CONSTRUCTION NOTES:

- THE SITE PLAN, EQUIPMENT AND INFORMATION SHOWN HEREIN ARE FOR REFERENCE ONLY AND ARE NOT INTENDED TO BE USED FOR CONSTRUCTION. ENGINEERED SWMP DRAWINGS RELATIVE TO THIS SITE WILL BE SUBMITTED AND APPROVED FOLLOWING APPLICABLE CITY OF AURORA STANDARDS AND PROCEDURES.
- IMAGES SHOWN HERE ARE REPRESENTATIVE OF TYPICAL EQUIPMENT FOR A WELL SITE. ACTUAL EQUIPMENT MAY VARY SLIGHTLY IN SIZE AND/OR COLOR.
- THE DIMENSIONS AND LAYOUT DEPICTED IN THE SITE PLAN SHOWN ARE REPRESENTATIVE OF A TYPICAL WELL SITE. ACTUAL DIMENSIONS AND LAYOUT MAY CHANGE BASED ON THE VARIABILITY OF THE EQUIPMENT.
- ESTIMATED SITE ACTIVITY SCHEDULED (TO BEGIN APPROXIMATELY 2 WEEKS AFTER CONSTRUCTION OF PAD SITE AND ACCESS ROADS:
 DRILLING - 14 DAYS (PER WELL HEAD), 24 HOURS/DAY
 FACILITIES HOOK-UP - 30 DAYS (PER WELL HEAD), 24 HOURS/DAY
 PRODUCTION - 20+ YEARS
- THE SURFACE MATERIAL FOR THE ACCESS ROAD AND THE PAD SITE WILL BE GRANULAR MATERIAL.
- DRILLING OPERATIONS WILL INVOLVE A DRILLING RIG, SUPPORT SERVICES, AND EQUIPMENT. THE DRILL RIGS ARE FITTED WITH DOWNCAST LIGHTING TO FACILITATE NIGHT TIME OPERATION. THERE ARE STRUCTURES OR OCCUPIED AREAS WITHIN 0.5 MILES OF THE DRILL SITE. SO OCULAR IMPACTS MAY BE EXPERIENCED. NOISE MITIGATION MEASURES MAY NEED TO BE USED. THE DRILLING RIG AND ANY SUPPORT EQUIPMENT WILL BE REMOVED AFTER DRILLING OPERATIONS HAVE BEEN FINISHED. AFTER THE DRILLING RIG IS REMOVED, ADDITIONAL EQUIPMENT WILL BE MOVED IN TO PREPARE THE WELL FOR PRODUCTION.
- WHEN THE DRILLING FOR THE WELL IS COMPLETE, THE RIG AND ASSOCIATED SUPPORT EQUIPMENT WILL BE REMOVED. VEHICLE TRAFFIC TO AND FROM THE SITE OVER THAT PERIOD OF TIME WILL BE PRIMARILY PASSENGER AND LIGHT TRUCK TRAFFIC, WITH AN OCCASIONAL MAINTENANCE VEHICLE. THE SITE WILL CONTINUE TO BE MAINTAINED UNTIL FINAL ABANDONMENT, WITH WEED AND SNOW REMOVAL, AND ACCESS ROAD MAINTENANCE PERFORMED AS NEEDED.
- AFTER CLOSURE OF THE WELL, THE APPLICANT WILL RECONTOUR, RECLAIM AND RESEED THE WELL PAD.

BEST MANAGEMENT PRACTICES

THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE OBSERVED DURING CONOCOPHILLIPS OPERATIONS WITHIN THE CITY OF AURORA.

- A CLOSED LOOP SYSTEM WILL BE USED INSTEAD OF OPEN DRILLING PITS.
- BERMS OR OTHER SECONDARY CONTAINMENT DEVICES SHALL BE CONSTRUCTED AROUND CRUDE OIL, CONDENSATE, AND PRODUCED WATER STORAGE TANKS SO THAT THEY WILL CONTAIN 110% OF THE LARGEST SINGLE TANK.
- AN AGREEMENT FOR DELIVERY OF REUSABLE RAW WATER BETWEEN THE CITY OF AURORA AND CONOCOPHILLIPS COMPANY HAS BEEN EXECUTED BETWEEN THE PARTIES DATED EFFECTIVE SEPTEMBER 26, 2017. A 3RD PARTY WATER PROVIDER WILL BE CONTRACTED TO MANAGE THE TRANSPORTATION OF THE WATER TO THE DRILL SITES. WHEN FEASIBLE, WATER WILL BE DELIVERED TO THE SITE VIA TEMPORARY ABOVE GROUND WATER LINES. THE ROUTE OF THE TEMPORARY WATER LINES WILL BE DETERMINED PRIOR TO THE START OF DRILLING OPERATIONS AND IS CONTINGENT ON THE WATER PROVIDER'S ABILITY TO SECURE ALL NECESSARY RIGHT-OF-WAY ACCESS AND PERMITS. IF A TEMPORARY WATER LINE CANNOT BE UTILIZED, WATER WILL BE DELIVERED TO THE SITE VIA TANKER TRUCK. WATER OFFTAKE FROM ANY WATER SOURCE PROVIDED BY THE CITY OF AURORA WILL BE COORDINATED WITH THE APPROPRIATE OFFICIALS AT THE CITY OF AURORA.
- ALL OPERATIONS AREAS SHALL BE ENCLOSED WITH A BARBED WIRE FIELD FENCE TO RESTRICT WILDLIFE AND/OR LIVESTOCK FROM ENTERING THE LOCATION.
- CONOCOPHILLIPS WILL USE DELINEATED HAUL ROUTES TO MINIMIZE TRAFFIC AROUND MORE DENSELY POPULATED AREAS AND MINIMIZE DAMAGE TO CITY ROADS.
- PRODUCED WATER WILL BE DISPOSED OF AT A COGCC APPROVED SALT WATER DISPOSAL WELL, OUTSIDE THE CITY OF AURORA.
- COMBUSTORS WILL BE USED TO DESTROY FUGITIVE EMISSIONS. VAPOR RECOVERY UNIT WILL BE USED IN CONJUNCTION WITH A VAPOR RECOVERY TOWER. THE VAPOR RECOVERY TOWER PREVENTS THE POTENTIAL OF OXYGEN GETTING INTO THE VAPOR RECOVERY UNIT CREATING UNSELLABLE GAS OR A POTENTIAL EXPLOSIVE HAZARD, ALONG WITH OTHER BENEFITS. EMISSIONS TESTS WILL BE PERFORMED ON A COMPLETED FACILITY AFTER THE WELL IS IN PRODUCTION.
- BASELINE AND SUBSEQUENT WATER QUALITY TESTING WILL BE PERFORMED IN ACCORDANCE WITH COGCC RULE 609.

STRUCTURAL BEST MANAGEMENT PRACTICES

1. REINFORCED ROCK BERMS (RRB) AND (RRC) - REINFORCED ROCK BERMS (RRCS) SHALL BE UTILIZED IMMEDIATELY UPSTREAM OF THE CULVERTS. REINFORCED ROCK BERMS (RRBS) WILL ALSO BE PLACED INTERMITTENTLY ALONG THE FLOWLINE OF THE ROADSIDE DITCHES. THE RRBS WILL BE PLACED IN THE INTERIM PHASE WHILE THE RRCS WILL BE PLACED IN THE INITIAL AND INTERIM PHASES PER THE SWMP PLANS.

2. STABILIZED STAGING AREA (SSA) - THE STABILIZED STAGING AREA SHALL BE USED FOR EQUIPMENT STORAGE, PARKING, A LOADING/UNLOADING ZONE, PORTABLE TOILETS, CONSTRUCTION TRAILER, WASTE COLLECTION, AND MATERIAL STOCKPILE AND STORAGE. THE STABILIZED STAGING AREA WILL ESSENTIALLY BE THE PERIMETER OF THE PAD SITE LOCATION.

3. SEDIMENT BASIN (SB) - WHERE THE TRIBUTARY DISTURBED AREA IS GREATER THAN 1 ACRE, A SEDIMENT BASIN WILL BE PLANNED FOR THE WELL SITE AT THE LOW POINT OF THE PAD. IT WILL BE IMPLEMENTED AT THE DOWNSTREAM TERMINATION OF THE DIVERSION DITCHES. THE BASIN WILL CONTAIN SILT FROM THE UPSTREAM CUT AND FILL SLOPES AROUND THE DRILL PAD SITE. PERIODIC MAINTENANCE OF THE POND MAY BE NECESSARY TO REMOVE ACCUMULATED SILT AND DEBRIS. SEDIMENT BASINS SHALL BE INSTALLED BEFORE THE PAD SITE GRADING BEGINS.

4. SEDIMENT TRAP (ST) - WHERE THE TRIBUTARY DISTURBED AREA IS LESS THAN 1 ACRE, A SEDIMENT TRAP WILL BE PLANNED FOR THE WELL SITE AT THE LOW POINT OF THE PAD. IT MAY BE IMPLEMENTED AT THE DOWNSTREAM TERMINATION OF THE DIVERSION DITCHES. THE TRAP WILL CONTAIN SILT FROM THE UPSTREAM FILL SLOPES AROUND THE PAD SITE. PERIODIC MAINTENANCE OF TRAPS MAY BE NECESSARY TO REMOVE ACCUMULATED SILT AND DEBRIS. SEDIMENT TRAPS SHALL BE INSTALLED BEFORE THE PAD SITE GRADING BEGINS.

5. DIVERSION DITCHES (DD) - UNLINED DIVERSION DITCHES WILL BE CONSTRUCTED AT THE TOE OF THE CUT AND FILL SLOPES ALONG THE BOUNDARIES OF THE PAD SITE. THESE DITCHES WILL CAPTURE SEDIMENT LADEN RUNOFF FROM THE SLOPES AND CHANNEL IT INTO SEDIMENT BASINS AND/OR TRAPS. IN THE FILL SLOPE APPLICATION, THE MATERIAL EXCAVATED FOR THE DITCH SHALL BE COMPACTED AND BERMED ON THE DOWNHILL SIDE FOR AN ADDITIONAL LAYER OF PROTECTION. DIVERSION DITCHES SHALL BE INSTALLED BEFORE GRADING WORK BEGINS ON THE FILL SLOPES AND AS SOON AS THE PAD SITE GRADING IS COMPLETE ON THE CUT SLOPES.

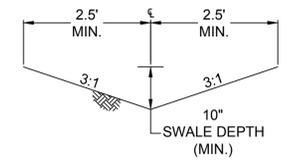
6. SEEDING AND MULCHING (SM) - CUT AND FILL SLOPES ADJACENT TO THE PAD SITE AND ACCESS ROAD SWALES SHALL BE STABILIZED WITH SM. IT SHALL BE APPLIED AFTER GRADING IS COMPLETE IN THE FINAL PHASE. IF THE SEEDING AND MULCHING APPLICATION DOES NOT PROVIDE ADEQUATE STABILIZATION FOR THE AREA WHERE SLOPES EXCEED 4:1, THEN MORE ROBUST BMP'S SHALL BE UTILIZED.

7. SEDIMENT CONTROL LOG (SCL) - 12" DIAMETER SEDIMENT CONTROL LOGS SHALL BE USED ON THE DOWNSTREAM PERIMETER OF THE SPOIL AND TOPSOIL STOCKPILES PER MANUFACTURER SPECIFICATIONS. SEDIMENT CONTROL LOGS SHALL BE INSTALLED IN THE INTERIM PHASE ONCE STOCKPILES HAVE BEEN CREATED.

8. VEHICLE TRACKING CONTROL (VTC) - IN LIEU OF A VTC, THE CONTRACTOR SHALL INSTALL AN ASPHALT APRON WHERE A PROPOSED ACCESS ROAD INTERSECTS A PAVED PUBLIC ROADWAY. IF THE PUBLIC ROADWAY IS GRAVEL, A VTC IS NOT NECESSARY. VTC OR ASPHALT APRON SHALL BE INSTALLED IN THE INITIAL PHASE BEFORE THE PAD SITE GRADING BEGINS.

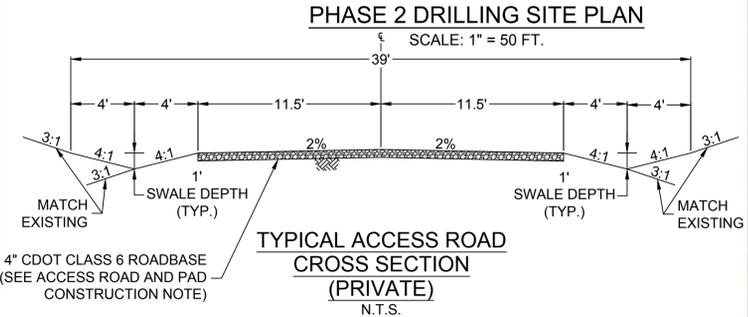
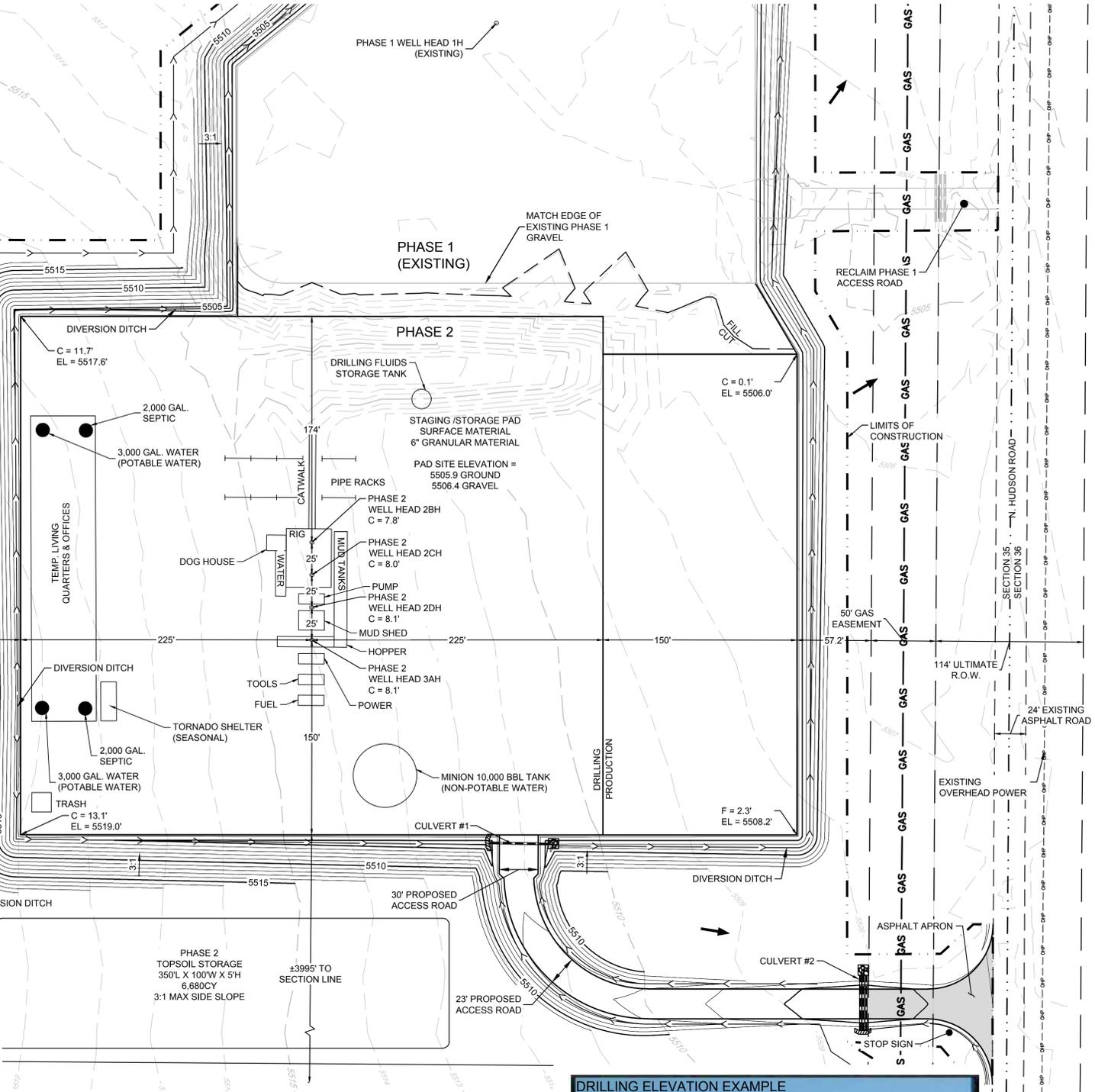
9. RIPRAP - TYPE-M RIPRAP SHALL BE INSTALLED DOWNSTREAM OF ALL CULVERTS FOR A WIDTH OF 4 TIMES THE CULVERT DIAMETER AND A LENGTH OF 4 TIMES THE CULVERT DIAMETER. RIPRAP SHALL BE INSTALLED IN THE INTERIM PHASE, FOLLOWING CULVERT INSTALLATION.

10. EROSION CONTROL BLANKET (ECB) - STEEP SLOPES SHALL BE PROTECTED WITH STRAW COCONUT BLANKETS WHERE INDICATED ON THE SWMP PLAN OR WHERE SEEDING AND MULCHING APPLICATION IS NOT EFFECTIVE. BLANKET SHALL BE INSTALLED WITH SEEDING DURING THE FINAL PHASE.

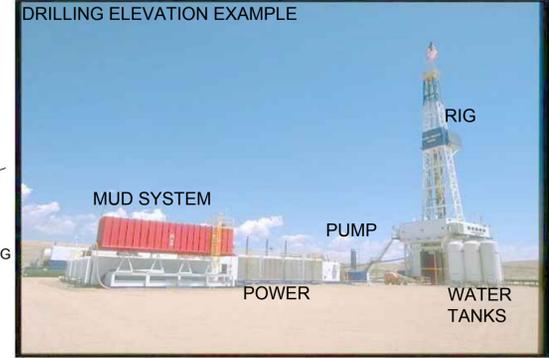


TYPICAL DIVERSION DITCH CROSS SECTION (PRIVATE)
N.T.S.

Drilling Equipment Representative Dimension Table				
Item	Length (ft.)	Width (ft.)	Height (ft.)	Diameter (ft.)
Hopper	51	12	12	-
Mud Shed	33	14	11	-
Mud Tanks	45	11	11	-
Drilling Rig	45	35	100	-
Pump	33	14	11	-
Power	30	11	11	-
Tools	43	12	11	-
Fuel	30	11	10	-
Dog House	29	10	9	-
Catwalk	58	9	8	-
Pipe Rack (long)	60	-	-	-
Pipe Rack (short)	26	-	-	-
Water	47	10	11	-
Drilling Fluids Storage Tank	-	-	20	16
Trash Dumpster	15	15	6	-
Minion 10,000 BBL Water Tank	-	-	32	49
Temp. Living	350	50	14	-



TYPICAL ACCESS ROAD CROSS SECTION (PRIVATE)
N.T.S.

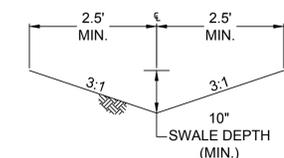
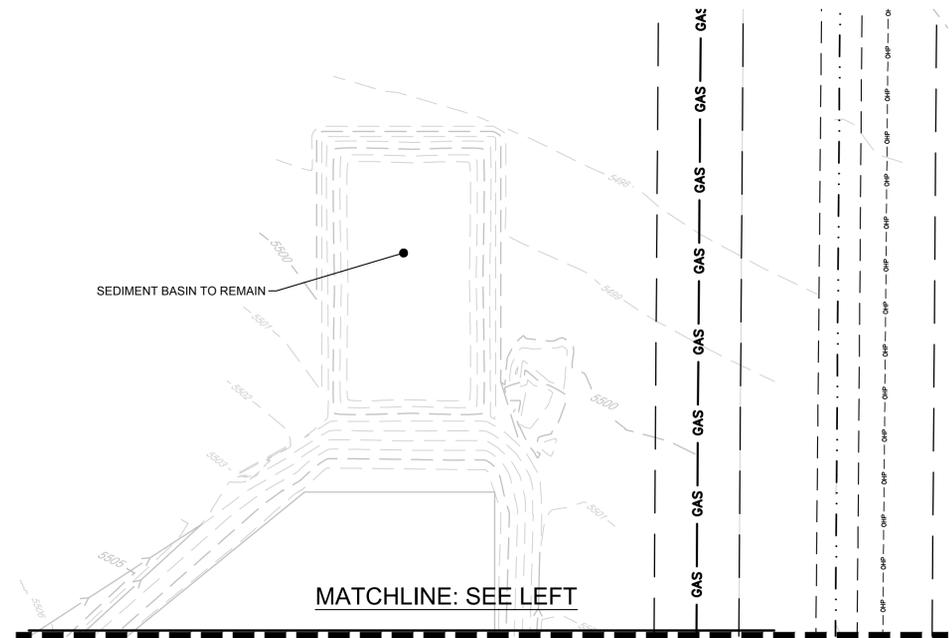
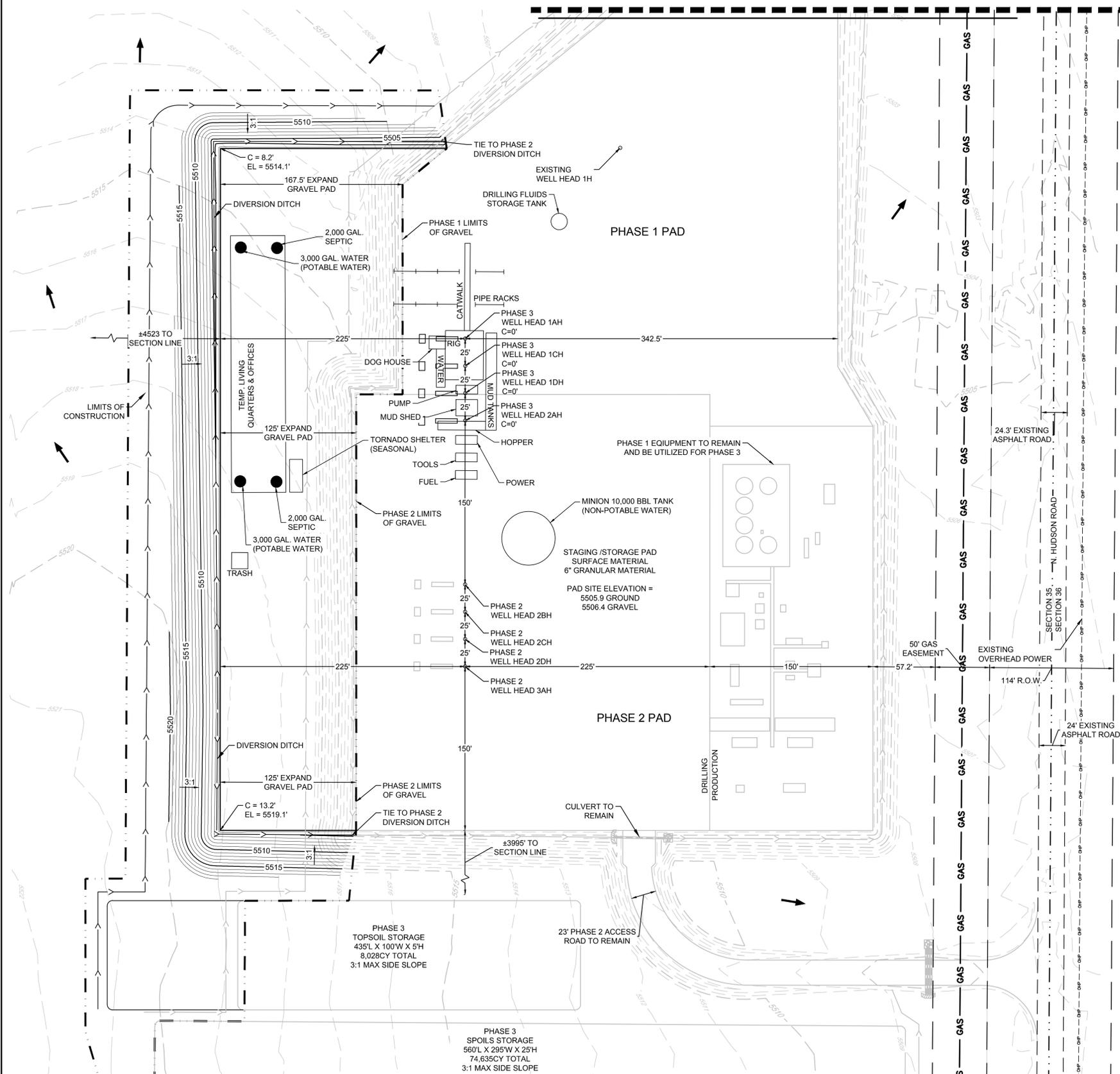
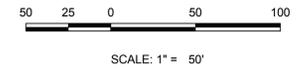


DRILLING ELEVATION EXAMPLE

10333 E. Dry Creek Rd. Suite 410 Englewood, CO 80150 Tel: (720) 482-9526 Fax: (720) 482-9546	Revisions	Date	Appr.	Date
	No.	Date	Init.	Date
	CONOCOPHILLIPS COMPANY ATTN: KATHY DENZER 34501 E. QUINCY AVE., BUILDING 1 WATKINS, CO 80137 PHONE: (303) 268-3773			
RESERVE #3-65 35-34-1AH, 1CH, 1DH, 2AH, 2BH, 2CH, 2DH, 3AH, OIL & GAS WELL S.W. OF N HUDSON RD. & 26TH AVE	SCALE: AS SHOWN	FILE NO: 8.13.0302819	DATE: OCT 2018	
PHASE 2 DRILLING	DRAWN BY: KID	CHECKED BY: MEL	DATE: OCT 2018	
SHEET NUMBER		CALL 811 TWO WORKING DAYS BEFORE YOU DIG UNCC 1-800-922-1987		4

RESERVE #3-65 34-35 OIL & GAS WELL PERMIT

SECTION 35, TOWNSHIP 3 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL
 MERIDIAN, CITY OF AURORA, ADAMS COUNTY, STATE OF COLORADO
 LATITUDE = 39°45'07.25"N, LONGITUDE = 104°37'25.40"W
 MATCHLINE: SEE RIGHT



TYPICAL DIVERSION DITCH
 CROSS SECTION
 (PRIVATE)
 N.T.S.

PHASE 3 DRILLING SITE PLAN
 SCALE: 1" = 50 FT.

NOTE:
 DRILLING EQUIPMENT
 TABLE IS THE SAME
 AS PHASE 2

CALL 811
 TWO WORKING DAYS
 BEFORE YOU DIG
 UNCC 1-800-922-1987
 UTILITY NOTIFICATION
 CENTER OF COLORADO

SHEET NUMBER	DATE:	OCT 2018	FILE NO:	8.13.0302819
	CHECKED BY:	MEL	AS SHOWN	
DRAWN BY:	KJD	SCALE:	RESERVE #3-65 35-34-1AH, 1CH, 1DH, 2AH, 2BH, 2CH, 2DH, 3AH, 3BH, 3CH, 3DH, 3EH, 3FH, 3GH, 3IH, 3JH, 3KH, 3LH, 3MH, 3NH, 3OH, 3PH, 3QH, 3RH, 3SH, 3TH, 3UH, 3VH, 3WH, 3XH, 3YH, 3ZH	
CONOCOPHILLIPS COMPANY ATTN: KATHY DENZER 34501 E. QUINCY AVE., BUILDING 1 WATKINS, CO 80137 PHONE: (303) 268-3773		CONOCOPHILLIPS COMPANY Engineers, Geologists 10338 E. Dry Creek Rd. Suite 410 Englewood, CO 80110 Tel: (720) 482-9226 Fax: (720) 482-9546		
CONOCOPHILLIPS COMPANY ENGINEERS, GEOL. ENGINEERS, LAND SURVEYORS		CONOCOPHILLIPS COMPANY ENGINEERS, GEOL. ENGINEERS, LAND SURVEYORS		
RESERVE #3-65 34-35 OIL & GAS WELL S.W. OF N HUDSON RD. & 26TH AVE PHASE 3 DRILLING		RESERVE #3-65 34-35 OIL & GAS WELL S.W. OF N HUDSON RD. & 26TH AVE PHASE 3 DRILLING		
Revisions		No.	Date	Appr.
Date				

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