

Goldmark/V.S.V./Klondike Joint VentureMarch 27 to June 24, 1989 - Calder Creek, Yukon Prospect

- March 27: Fly Nanaimo to Vancouver. Rent car to check on pipe manufacturer, order carbide inserts. Return car. Fly to Fort St. John where drill helper, Wayne Rhyason, boarded. Overnight in Whitehorse.
- March 28: Meet with David Downing concerning 1989 Yukon government exploration grants. Pick up parts, groceries.
- March 29: Pick up additional groceries, parts, supplies, service pick-up truck. Drive to Dawson City.
- March 30: Pick up claim maps. Fax claim ownership abstracts to R. Coke/D. Downing in Whitehorse. Buy additional supplies, gas up pick-up.
- March 31: Drive to Sixty Mile. Check drill, change batteries, take tilt cylinders apart, measure mast support, repair steel requirements, check bolts and welds. Drive back to Dawson.
- April 1: Check with Northern Kat on \$14,000 payment for hulk of D8H Caterpillar tractor damaged by Klondike. Change packings on tilt cylinders. Clean snow out of truck and take broken 7" drill steel to machine shop. Look for steel for derrick support. Buy grease, rope, fittings. Talk to C.A. Teare in Calgary about notice to VSV/Klondike Joint Venture partners.
- April 2: Drive to Glacier Creek to attempt to start FN110 Nodwell. Pick up batteries and cables at Miller Ck. Start Nodwell and drive to Miller and Sixty Mile leases to pack trail for drill. Service sonic head and install tilt cylinders. Start removing damaged controls. Overnight at Klondike's camp.
- April 3: Remove control rack - one relief valve spring had been removed by someone. Drive to Dawson, buy drill bits to make hydraulic flow restrictors, deliver 7" bits and pipe to machine shop. Buy hydraulic fluid, brake fluid, battery, fittings and gas up pick-up.
- April 4: Drive to Klondike camp. Install control rack and all hoses. Pressure test OK. Service drill. Overnight at Klondike camp.

- April 5: Road drill to lease and drill hole 5, downhill and 100 feet southeast of #4. White Channel gravel 0'-8' B', 8'-13' very hard conglomerate. Panned 3 "fly spec" gold particles from core. Pipe broke at top thread - recovered same. Conglomerate is fine grained sandstone with pebble banks, nearly horizontal, light brown to tan but not decomposed or altered as is true White Channel material. Road drill back to Miller Creek crossing and remove levelling jack packings, remove burnt wire on drill carrier motor. Load broken pipe on pick-up and drive to Dawson.
- April 6: Could not find packing for drill levelling jacks but obtained some used packings from N. Kat and cut to size. Buy chain saw chain. Unload broken pipe and order new packing nuts. Order mast support steel, packings.
- April 7: Order two new tires for Nodwell. Pick up steel and rethreaded drill pipe. Drive to Klondike camp. Start fabricating mast support. Clean out and organize spare parts, tools, fittings (those not taken by Klondike crew after their fire). Borrow welding rod from Hakonson Mine. Overnight @ Klondike camp.
- April 8: Continue fabricating, remove wheels from Nodwell. Overnight at Klondike camp.
- April 9: Install support. Load up rig. Drive to Dawson.
- April 10: Pick up rethreaded pipe, wait on cylinder nuts.
- April 11: Pick up new tires, mount at garage. Drive to Miller Ck and work on Nodwell.
- April 12: Road drill to drillsite, power saw trails. Repair Klondike skidoo to travel back and forth. Overnight at Klondike.
- April 13: Drill holes #6, #7, west of #5 with the same results. Remove additional worn tires from Nodwell. Drive to Dawson.
- April 14: Take worn tires to garage. Pick up parts. Pay \$1,000 freight bill on new drill pipe. Drive to Klondike camp. Discussed plans with Richard Coke.

As the ferry is soon to go out, it would seem more practical to move the drill to Calder Creek, on the accessible side of the Yukon River. Road drill to Glacier Creek loading area - planetary final drill over heating. Overnight at Klondike camp.

- April 15: Install new tires on Nodwell. Load drill on lowboy. Haul to Dawson. Remove final drive cover and find seal damaged. Split track and remove drive sprocket. Pick up gear, hydraulic oil and fuel. Order new bearings.
- April 16: Unload pick-up. W. Rhyason cleaned up planetary parts. Pick up 450 l. of gasoline for Klondike camp. Pick up Tom Skimming at airport and drive to Klondike camp. Discuss Joint Venture with Coke and Skimming. Look at bench open pit mine on Miller Creek upstream of Klondike property. Return to Dawson.
- April 17: Pick up groceries. Write agreement for J.V. Review photos, maps, drill results on Calder Ck. Took Skimming to airport. No parts. Find new drill bits at Alkon Air. Only one bearing arrived - order additional. Dismantle rest of drill carrier final drive - clean mud out of belly pans.
- April 18: Found hub shaft worn in seal area - located seal sleeve and cut hub down to fit.
- April 19: Install planetary drive and track. Remove broken window and haul junk to dump.
- April 20: Install 7" x 4 1/2" drill head adaptor. Remove and re-cut threads at machine shop. Screw on new core barrel. New drill pipe too heavy for 2 man crew. Haul rig to headwaters of Quartz Creek.
- April 21: Drive to Klondike Camp. Install new axle bolts, battery in Nodwell. Road machine to Sixty Mile River and load on lowboy. Unload Nodwell to cross ice bridge on Yukon R. and reload. Buy jack and comealong.
- April 22: Repair alternator bracket on Nodwell. Load drill pipe on lowboy. Store Goldmark gear in Dawson. Haul Nodwell to Quartz Creek and road Nodwell and drill to Calder Creek - repair brake cylinder on Nodwell (4 hours roading).

- April 23: Repaired and installed steering cylinders on Nodwell. Road 2 machines to Calder drillsite (1 hr.). Drill hole 89-A-1 (4 hrs.). Core sticking in pipe and overflowing core barrel on next drilling run. List fittings required to blow core out with air. Change 2 broken cleats on Nodwell. Fuel gauge on Nodwell shorted out, ran out of fuel. Pump fuel and drive to Dawson by 11:30 p.m.
- April 24: Look for pipe moving dolly parts. Pick up groceries and air line parts. W. Rhyason found used bearings for dolly, made a.m. appointment with machine parts.
- April 25: Build dolly. Repair pick-up truck drive shaft. Pick up Nodwell electrical parts.
- April 26: Pick up groceries, gear, parts and drive to Redford at mouth of Calder Ck. Repair Nodwell alternator bracket at nearby camp. Bleed steering brakes. Nodwell to drill site. Hole full of water and caving badly - Drill 33 - 41'. Hole caving causes core barrel to overflow after a few feet and stops progress. Move to A-2 on permafrost ground. Drilled to 22'. Pan samples (drill 4, road 1/2) Nodwell (5 1/2).
- April 27: Drill 22-24', dump core & water. Drill 24 - 41 1/2, add second 17' pipe and drill 10' - pipe sheared off at adaptor thread. Blew two Nodwell tires in flooding creek crossing. Remove flat tires and drive to Dawson, drill 5 hrs., Nodwell 6 1/2.
- April 28, 29, 30: Work on pick-up - order parts for drill string.
- May 1: Wait on parts. Pick up supplies, clean up house trailer, yard, laundry.
- May 2: Wait on parts. Get two new Nodwell tires mounted. Cook and freeze meals.
- May 3: Pick up drill head adaptor from airline at 4:00 p.m. Check basic measurements - OK. Pack field gear.
- May 4: Depart Dawson at 7:30 a.m. 4x4 to Redford at confluence of Calder and Quartz creeks. Change two tires and one set of wheel bearings on Nodwell.

- Nodwell to drill rig. Attempt to install flange but only 3 of 12 bolt holes would line up. Nodwell and 4x4 to Dawson - call out machinist to ream bolt holes to 9/16" from 1/2".
- May 5: Back to drill rig and install flange. Work pipe for two hours before breaking permafrost. Recover 58' of pipe, bit and very pale core of fine material. Move to line 89-B 1,000' up "Nettie M" tributary from its confluence with Calder Ck. Drill B-1, had very pale gravel from 17'-23' No gold. Overnight at Redford.
- May 6: Nodwell back to drill, cutting new trail across Calder and up Nettie M. Attempt to recover 23'-24' sample of very hard bedrock (?) from B-1 without success. Steep bank behind drill prevented adding pipe to go deeper. Move north across Nettie M. 50' and drill B-2 and B-3 and panned no gold. Bit worn out. Nodwell to Redford, 4x4 to Dawson in snow and thick fog.
- May 7: Pick up bits. No grocery store open, no parts arrived.
- May 8: Drill B-4 and C-1 starting up the hill parallel but out of the influence of Nettie M. pup creek. Blew tire on Nodwell and bearings packed up on another wheel. Added grease and limped to Redford. Removed wheels and drove to Dawson in snow.
- May 9: Wait on tires and bearings. Pick up parts, groceries.
- May 10: Some bearings arrived but no tires. Clean yard. Drive up Eldorado Creek to check alternate access to Calder. Route up Eldorado very steep and full of washouts but would cut trip from 50 km to 35 km if results warrant change.
- May 11: Deliver tires to garage. Buy 10 Nodwell cleats for \$250.00. Pick up tires, gear. 4x4 to Redford. Install two wheels and two sets of bearings. Grease with 10 tubes of grease. Arrange rental of D7E cat from Estabrook.

- May 12: Walk Cat 1 mile to Redford. W. Rhyason worked on road for 10 1/2 hours but could not fill deep muskeg with 90 yard push from either direction. Change broken cleats on Nodwell, work on electrical short, charge U-joint on 4x4. Return cat.
- May 13: Continued C-1 and drilled C-2, C-3. Changed 4 cleats on Nodwell.
- May 14: Drill C-4. Cut new trail but power saw chain wore out and trees too large to run over with drill. To Dawson.
- May 15: Pick up wrenches, new chain for saw, hardware, oil, gas, groceries. Cook and freeze meals. Goldmark board meeting by phone. Pack gear.
- May 16: Pick up new 9' drill pipe - 4x4 to Redford and Nodwell to drill. Cut trees. Drill C-5 above lowest bench and C-6 on second bench. Problems with air leaks on drill. Walk 3 miles to Redford draining water off road. Showers, -2°C.
- May 17: Drill C-7 and C-8 on second bench.
- May 18: Survey and plot data - cut trail to north edge of Nettie M. pup creek. Drill D-1, D-2, D-3 and D-4 @ 125' intervals going downstream. Change cleats on Nodwell. Pan samples - lots of black sand in Line C gravels but little gold. Chain saw trail.
- May 19: Add transmission fluid and diesel to Nodwell. Drill D-5, D-6, D-7, D-8, D-9 and D-10. Chain saw trail. Drive to Dawson.
- May 20: Pick up window glass for drill door, groceries, chain saw bar oil, mail, planks for new rig levelling pad. Work on Matson Creek pump (Goldmark).
- May 21: Put Goldmark water pump together.
- May 22: Load gear and 4x4 to Redford. Nodwell to Nettie M. pup - set up tent. Power saw Line C further uphill and drill C-9, C-10. Power saw trees.
- May 23: Drill C-11. Core keeps jamming in sand/silt. Power saw trees.

- May 24: Power saw trees and replace broken Nodwell cleats. Drill C-12 having lots of problems with caving of very heavy, thawed clays.
- May 25: Finished hole C-12 and moved back to side of Nettie M. pup and drilled D-11, D-12, D-13, D-14, D-15, D-16. Extended Line C and drilled C-13, C-14, C-15 and C-16.
- May 26: Cut Line E along the rim dropping down into Nettie M. pup and between Lines C and D. Drill E-1 to E-5. Hoist motor spraying hydraulic oil out of output shaft. Remove and take to Dawson.
- May 27: Take hoist motor apart and order seals. Bearings OK and seals not badly worn. Buy groceries. Take power saw in for repairs, order new one and rent used one.
- May 28: Load fuel barrels, 10 new Nodwell cleats, hoist motor, etc. and 4x4 to Redford. Transfer fuel to Nodwell and change 6 broken cleats. Nodwell to tent camp. Install hoist motor, no power, call supplier who's service manager insists that a spacer plate must have been smashed and washed away.
- May 29: Power saw trail to extend Line E downhill. Replace two broken cleats on drill tracks. Reassemble hoist motor. Confirm by radio that parts are coming by priority air express.
- May 30: Cut trail from Line E to D. Fill all fuel tanks - Survey top part of Line C but helpers distance measurements seem unreasonable. Load gear and Nodwell and 4x4 to Dawson.
- May 31: Check regulations and open ground on Calder Creek. Parts had not arrived as they had been mailed - reorder. Pick up new chain saw. Check ownership of other Calder, Canyon and Little Blanch Creek claims.
- June 1: Clean out pick-up truck and workshop. Bag lawn rakings and haul junk to landfill site. Put front bumper on truck. Pick up bits at welder's shop, track bolts. Drive up Eldorado Creek which heads

with Calder. Walked part of old stagecoach road both directions from the summit post office. Road is overgrown with willows and wet in several spots. Stick truck in washout for 1 1/2 hours.

- June 2: Bought shovels and new chainsaw. Bickell and Rhyason filled washouts and cut willows off of road from summit down Calder. Noted that Eldorado Creek and its tributaries have been mined to the very head of those valleys while Calder Creek headwaters, a few thousand feet removed, have not been mined at all.
- June 3: Pick up parts and assemble hoist motor, synchronize. Drive to Redford and Nodwell to drill. Install motor. Finish E-5 and drill E-6. Lop willows off of 1 km of stage road toward summit.
- June 4: Drill E-7, E-8, E-9. Got soaked in heavy thunderstorms.
- June 5: Drilled E-10, moved down into Nettie M. Creek and drill DA-1, 2, 3 and 4. Heavy rain 2-8 pm. Move stove inside of tent. Scout area trying to couple surface features with drill results.
- June 6: Drill DA 5, 6 & 7 downstream on Nettle M. Clear a drill line to Line C and drill DC-1 & 2.
- June 7: Re-enter E-11 and deepen hole to 37'. Drill DC 3 and 4. Out of fresh food. Nodwell motor had diesel in oil sump. Remove injector rack and pack to Redford. Drive to Dawson.
- June 8: Take injector pump to N. Kat and order new seals. Check with mechanics on how to time rack with motor. Reassemble old chainsaw with used parts.
- June 9: Bickell cut 1/2 km of willows off of old stage road down Calder Ck. while waiting on Nodwell motor parts.
- June 10: Injector seal arrived but no fuel pump diaphragm. Drive to Redford and put planks across muskeg - drive to within 1/4 mile of Nodwell. Pack parts and gear into tent camp. Try to time injectors without success as flywheel markings are confused. Remove valve cover and flywheel spacer inspection plate. Change air regulator and tilt hose on drill. Scout area with photos.



- June 11: Up at 6:00 a.m. and pry flywheel around to find second set of timing marks. Power saw trails around tent camp. Drill DE-1, DE-2 and DE-3. Work on Nodwell in evening.
- June 12: Drill 2 more holes upstream of tent after felling lots of trees.
- June 13: Cut trails. Drill two more holes around tent. Richard Coke drove in and reviewed data, photos, etc. Timed Nodwell and hooked-up electric fuel pump.
- June 14: Drill 4 holes in creek F-1 to F-4.
- June 15: Drill F-5 to F-7. Pan samples. To Dawson.
- June 16: Repair mechanical fuel pump for Nodwell. Drive to Miller Creek to report to Klondike.
- June 17: Drive to Redford. Repair plank road. Measure White Channel bedrock at Redford on Quartz Creek as 35 to 40' thick, covered by Wisconsin gravels in places and its bedrock is 35 to 40' above the modern creek water level. Elevation of weak spot on north bank of Nettie M. Creek is 200' above main creek at 730m offset.
- June 18: Pan 1988 samples to determine that most of the altered material is not fluvial.
- June 19: Discuss project with R. Coke of Klondike. Pick up mail, groceries, supplies and drive to Redford and up Calder. Walk area with photos. Cut trail to 730m up Nettie M. Creek. Move drill in.
- June 20: Drilled F-1 through F-4 with shallow bedrock.
- June 21: Make notes. Clean house, laundry, pay bills.
- June 22: Discuss theory with Klondike's Chris Hall and drive to Calder with Coke and Hall.
- June 23: Return to Calder and walk all areas again. Take elevations with altimeter and hip chain.
- June 24: Organize field notes.
- June 25: Drive to Whitehorse. Fly to Calgary.

Calder Creek, Yukon  
October 1988 Reverse Circulation Cuttings Samples

- A-1: (Drilled without supervision as Bickell had pick-up failure).  
0-28' grey mud and silt with 15% scree chips - hole abandoned by drillers as it was assumed to be bedrock.
- A-2: (Bickell arrived as drillers were preparing to abandon hole).  
0'-42' as A-1  
42'-46' 25% spruce wood  
46'-52' roots and moss in clay  
52'-54' light grey damp muck and gravel  
56'-76' top of red (rusty) silt gradually grading to light orangish-buff. The deeper one goes, the more this material looks like bedrock but it is wet, contains ice, is frost-exploded and appears to be chemically altered to a lighter colour. Many of the grains are angular but some appear as if they could be rounded.
- Panning: 52'-54': light grey, wet clay with rock chips. 20% clay, 10% silt, 70% gravel, about 1/2 quartz, some rounded sand and some rounded pea gravel, 1/2 tan micaceous schist.
- 64-66: very rusty red and damp, 70% clay, 20% silt, 9% sand with round grains, 1% pea gravel, round
- 74-76: light orange/buff, dry  
30% clay, 10% silt, 50% sand quartz with some rounding, mostly quartz, 10% rock broken quartz schist with some rounding.
- #3. 0'-14' muck and ice  
14'-18' scree  
18-30' mostly mud, wet, grey. 50% clay, 30% silt, 15% sand, 5% rock; reddish tan or grey schist with rare quartz, all angular.  
30-38' as above but nearly dry with bands of scree rock  
38-40' very little rock or sand  
40-55' dry grey silt with occasional grey to reddish scree rock  
55-55 1/2' buff schist scree  
55 1/2 - 88' slightly reddish tinge to grey silt with layers of broken schist  
88-104' silt, grey to reddish, quite dry  
104-106' reddish brown sand  
107-110' orange/tan decomposed schist bedrock, 25% clay, 10% silt, 50% sand, 15% rock  
110-120' firm light orange quartz schist all broken rock becoming dry.

A-7\*      0-10'      Dry gravel with mud. 10% grey clay, 5% silt, 10% sand (round) 75% orange/buff rock with rare pebbles or parts thereof, some black sand.  
          10-18'      damp grey clay with orange tinge and some scree.\*  
          18-20'      grey tan quartz schist; dry.  
          20-32'      as above, suspect bedrock top @ 18'.  
  
A-9        0-12'      muck and water  
          12-18'      damp, light grey, 50% clay, 5% silt, 25% sand, 20% mixed broken rock, black sand.  
          18-20'      damp light grey, 5% clay, 5% silt, 10% sand, 80% grey broken rock.  
          20-28'      damp grading to dry 25% sand, 65% broken rock, no round sand.  
          28-30'      some round rock possible.  
          30-40'      rare round (?) material found.

\*      Holes 4, 5, 6 were drilled approximately 1 km upstream and encountered only muck and bedrock. Thought to be between benches.

gravel, 1/2 tan micaceous schist.

Calder Creek, Yukon, April - June 1989 Drill Results

Hole #A-1 (89)

0-4'      sub-rounded dirty gravel.  
4-11'      muck with rare brown rounded gravels.  
11-16 1/2      grey/green muck with scree at base  
16 1/2 23      grey/green scree  
23-30      brown gravel  
30-41'      pale fine quartz rich (80%) material with some rounding, hole caving, recovering only a slurry, some black sand, no gold.

Hole A-2 (89)

0-22'      6' muck, 6' dirty, coarse gravel, 4' muck 4' tan gravel.  
22-24'      decomposed rock, tan, wet, scree layers in various directions.  
24-41 1/2      as above but firmer, some schist horizontal, vertical, etc.  
41 1/2-50      white, altered material - core washed away in rains after drill rig failure.

Line B, Across Nettie M. Pup Creek, 1000 feet upstream from Calder

- B-1 (May 5/89) Adjacent to creek on south side.  
0-17' frozen muck  
17-23' pale tan gravel, no gold, some black sand.  
23-24' very hard bedrock (?) lost core due to intense heat from drilling hard rock.
- B-2 (May 6/89) North 50', across Nettie M. Creek  
0-18' frozen muck  
18-19' boulder, quartz schist  
19-21' clay/gravel, pale tan; no gold, some black sand  
21-22' schist bedrock, decomposed  
22-22 1/2 bedrock, hard and dry
- B-3 (May 6/89) 25' south of B-1  
0-17' muck  
17-28 1/2 clay and gravel, no gold, some black sand.  
28 1/2 -29 bedrock, decomposed schist  
29 1/2-30 bedrock, becoming dry and hard.
- B-4 (May 8/89) 40' south of B-3 and 3' higher (side hill)  
0-15' frozen muck with layers of scree  
15-16' very hard bedrock, dry

Line C, West from Calder, Parallel to and 1000 Upstream from Nettie M. Creek

- C-1 (May 8 & 13/89) 119' from Calder @ +12'  
0-10' muck, frozen  
10-17' gravel, tan, sub-angular, local  
17-20' gravel, dark grey clay, sub-angular, local  
20-21' bedrock, soft, decomposed, mica schist  
21-22' bedrock, hard
- C-2 (May 13/89) 277' from Calder @ +34.5'  
0-2' muck, frozen  
2-8' scree then firm mica schist bedrock
- C-3 (May 13/89) 468' from Calder @ +56.6'  
0-1 1/2' muck, frozen  
1 1/2-10' scree and mud (thawed) layers  
10-12 1/2 gravel, sub-angular, local  
12 1/2-14 gravel and clay  
14-15' bedrock, 9" soft, decomposed, then hard mica schist

- C-4 (May 14/89) 562' from Calder @ +62.9'  
0-2' muck, frozen  
2-10' scree, frozen  
10-14' gravel, tan, sub-rounded  
14-15 1/2 muck 1/2, scree 1'  
15 1/2-17 gravel, tan  
17-17 1/2 soil  
17 1/2-22 gravel, clay  
22-22 1/2 bedrock, pale rusty, decomposed  
22 1/2-23 1/2 bedrock, firming, mica schist
- C-5 (May 16/89) 714' from Calder @ +73.4'  
0-11' muck with scree layers  
11-11 1/2 bedrock, very hard (bit red hot)
- C-6 (May 16/89) 990' from Calder @ 97.5'  
0-2' muck, thawed  
2-6' scree  
6-8' muck, frozen  
8-13 1/2 gravel, pale, fine, no gold  
13 1/2-14 1/2 bedrock, decomposed schist  
14 1/2-16 bedrock becoming firm and dry  
frozen muck with layers of scree
- C-7 (May 17/89) 1050' from Calder @ +100.9'  
0-12' layers of mud and scree, thawed - jamming in pipe  
12-15' dirty gravel, no gold  
15-22 1/2 gravel, cleaner, no gold  
22 1/2-32 bedrock, soft, decomposed, steeply dipping, very schisty
- C-8 (May 17/89) 1122' from Calder @ +106.4'  
0-16' muck and scree layers, thawed  
16-17' gravel, tan, local, no gold  
17-23' bedrock as C-7
- C-9 (May 22/89)  
0-1' soil, thawed  
1-1 1/2 bedrock, dry, hard
- C-10 (May 22/89)  
0-8' muck, thawed  
8-15' sand/silt, thawed  
15-22' mud and scree layers thawed, hole caving
- C-11 (May 23/89)  
0-4' muck, thawed  
4-21 1/2 scree and mud layers, thawed  
21 1/2-22 bedrock (?) very hard, lost core

C-12 (May 24/89)

0-4' muck, thawed  
4-8' clay, very sticky, thawed  
8-10' scree and clay jumble  
10-17' clay and scree layers  
17-18' sand/silt, very dense, thawed  
18-23' scree layers and mud  
23-33 1/2 scree/mud, very difficult to pull pipe  
33 1/2-34 bedrock, decomposed schist  
34-35' bedrock becoming very hard and bone dry, very quartzy schist

C-13 (May 25/89)

0-2' mud, thawed  
2-6' clay, sticky  
6-10' scree, hard  
10-10 1/2 silt/sand, dense  
10 1/2-12 scree  
12-13' bedrock, decomposed  
13-16' bedrock, as C-12

C-14 (May 25/89) as C-13

C-15 (May 25/89) as C-13

C-16 (May 25/89) as C-13, bedrock @ 22'

Line D Adjacent (north) to Netter M. Creek

D-1 (May 18/89)

0-4' muck, frozen  
4-6' bedrock, fractured clay-filled  
6-8' bedrock, solid, dry, very hard

D-2 (May 18/89)

0-8' muck, frozen  
8-10' bedrock, fractures clay-filled  
10-13 1/2 bedrock, solid, dry, very hard

D-3 (May 18/89) as D-2 total depth 15

D-4 (May 18/89) as D-2

D-5 (May 19/89)

0-4' muck, frozen  
4-14' gravel, tan, local, sub-rounded  
14-16' ice and pale scree  
16-21 1/2 bedrock, very schisty, becoming hard @ 21

D-6 (May 19/89)

0-4' muck, frozen  
4-7 1/2 gravel, dirty, local  
7 1/2-9 1/2 bedrock, fractured and clay-filled  
9 1/2-14 bedrock becoming very hard and dry

D-7 (May 19/89)

0-2' muck  
2-7' gravel, local, dirty  
7-13' bedrock becoming hard and dry

D-8 (May 19/89)

0-15' muck, frozen  
15-17' gravel, dirty, local  
17-19' bedrock, fractured  
19-21' bedrock, dry, hard

D-9 (May 19/89) near creek

0-12' muck, frozen  
12-14' gravel, dirty, local  
14-17' bedrock, broken then solid and hard, dry

D-10 (May 19/89) out in middle of valley

0-20' muck, frozen  
20-20 1/2 gravel, dirty, local  
20 1/2-22 bedrock, becoming too hard to drill

D-11 (May 25/89)

0-2' muck  
2-4' scree and mud  
4-6' soft mica schist, decomposed  
6-8' bedrock, becoming dry and firm

D-12 (May 25/89)

0-2' muck  
2-4' silt  
4-6' bedrock, decomposed  
6-7 1/2' bedrock, very hard

D-13 (May 25/89)

0-6 1/2' muck and silt  
6 1/2-9' gravel, dirty, local  
9-12' bedrock @ D-12

D-14 (May 25/89)

0-25' muck, frozen  
25-27' scree  
27-30' bedrock, white schist, becoming firmer

D-15 (May 25/89) on hill side bench  
0-9' silt, dense, frozen  
9-10' bedrock, firm, dry

D-16 (May 25/89) high bench  
0-5' clay, scree  
5-12' bedrock, becoming very hard

DB-1 (June 5/89) very near north hole on Line B  
0-6' muck  
6-15' scree  
15-21' bedrock, decomposed grading to very hard

BA-2 (June 5/89)  
0-8' muck  
8-15' scree  
15-17' soil  
17-20' bedrock, decomposed for 1 foot then hard and dry

DA-3, as DA-2

DA-4 as DA-2

DA-5 (June 6/89) as DA-2 with bedrock @ 15'

DA-6 (June 6/89) as DA-2 with bedrock @ 15'

DA-7 (June 6/89) as DA-2 with bedrock @ 15'

DC-1, 2 (June 6/89) across nose between Nellie M. and Calder creeks  
0-15' muck and scree  
15- bedrock

DC-3,4 as DC-1,2.

Line E - Parallel to Nettie M. Creek just above rim

E-1 (May 26/89)  
0-2' clay, thawed  
2-4' bedrock, decomposed  
4-6' bedrock, hard

E-2 (May 26/89) as E-1

E-3 (May 26/89)  
0-3' clay  
3-6' bedrock, decomposed  
6-8' bedrock, very firm



E-4 (May 26/89) as E-3

E-5 (May 26/89) as E-3

E-6 (June 3/89)

0-13' muck and scree layers

13-18' bedrock, decomposed, becoming hard and dry @ 18'

E-7 (June 4/89)

0-3' muck, thawed

3-16' mud and scree layers

16-22' bedrock, mica schist, decomposed, becoming firm and dry at 22'

E-8 (June 4/89)

0-2' muck, thawed

2-4' scree, very hard

4-6' scree, soft

6-10' clay with scree bands

10-26' scree with clay bands, roots

26-30' bedrock, mica schist, becoming firm and near vertical

E-9 (June 4/89)

0-16' muck and scree layers

16-17' gravels, sub-angular

17-20' scree, hard

20-24' scree and clay layers

24-30' silt/sand, jammed core barrel

30' Flat, partly decomposed bedrock (?)

Re-entered hole (June 7/89)

30-36' scree

36' very hard bedrock (?)

Later examination indicates that this is either the weathered top of bedrock or chunks of large boulders (one quartz, 2 quartz/schist).

E-10 (June 5/89) as E-9 to 30', including roots.

Area 'DE'- A scattering of drill holes on the hill side going down into Nettie M. Creek.

DE-1 (June 11/89) Directly between E-10 and creek, 5' lower than E-10

0-4' muck, thawed

4-9' scree

9-14' air - thawed ice lense (?)

14-23 1/2 scree/mud layers

DE-2 (June 11/89) moved downhill an additional 7' rather than add drill pipe

0-4' scree  
4-9' air  
9-14' white, fine, altered material  
14-19' bedrock, decomposed  
19-21' bedrock, firm dry mica schist

DE-3 (June 11/89) upstream, flat with DE-2

0-3' mud  
3-5' scree  
5-14' bedrock, very decomposed then decomposed then firmer  
(soft mica schist)

DE-4 (June 12/89) downstream, near tent

0-6' mud/scree  
6-8' hard dry bedrock

DE-5 (June 13/89) as DE-4

Line G - Across Calder Creek, 500' Upstream of Confluence with Nettie M. Creek

G-1 (June 14/89) 20' west of creek

0-8' muck, frozen  
8-11' gravel, local, no gold

G-2 (June 14/89) in Calder Creek (creek is 2' wide)

0-13' muck on bedrock (hard)

G-3 (June 14/89)

0-8' muck  
8-12' gravel, local, no gold  
12-14' bedrock, becoming hard

G-4 (June 14/89) 20' east of Calder Creek

0-9 1/2' muck, frozen  
9 1/2-10 1/2' scree  
10 1/2-12' muck  
12-21' gravel, local, no gold  
21-23' bedrock, decomposed grading to very hard

G-5, G-6, G-7 (June 15/89) east at 40' intervals

mud, scree and minor gravels on soft then hard bedrock @ 19', 21' and 23'.

July 26 - August 16:

- fly to Whitehorse, drive to Dawson City
- wait on word from V.S.V.'s Tom Skimming
- repair pick-up
- survey drill holes, cut trees for trail
- send demand fax to V.S.V.'s Bruno Vatri - no reply
- Skimming refuses to confirm financing of drilling program
- negotiate payment from Klondike Gold Mining Corp. with Richard Coke on behalf of V.S.V.

August 17:

- load supplies and drive to Redford
- install repaired front drive shaft
- drive up Calder Creek trail
- cut trees
- service all equipment
- drive equipment to former camp site
- sleep in back of pick-up truck
- (road 3 hrs., Nodwell 3 hrs.)

August 18:

- chain from creek crossing to Line B, note gap in holes which could host gravel deposit
- cut trees and drill in front of tent site to 24'
- thawed soil and silt to 10' - frozen muck to 15'
- mixed gravel, clay, scree to 24'
- return to Dawson
- (drill 2 hrs., road 1 hr., Nodwell 1 hr.)

August 20:

- R. Coke assisted to add pipe and drill to 33' in clay and scree
- move down-slope 22' vertically and drill 3 - 16' holes to fill gap
- muck to 10' (some thawed ice caverns), scree to 11 - 12', bedrock is mica schist
- road drill and Nodwell to 1988 line
- (drill 4 hrs., road 2 hrs., Nodwell 3 hrs.)

August 24:

- L. Knoll and R. Coke assisted
- cut trail to midway between 1988 holes 2 and 3
- drill to 40' in very sticky, heavy clay/scree
- very difficult to drill and dump core
- return to Dawson and cook dinner
- (drill 5 hrs., road 2 hrs., Nodwell 3 hrs.)

August 25:

- cut worn face off of bits - try non-upset bit
- R. Coke assisting
- drill to 75' in very dense clay/scree
- many trips out to dump plugged bit
- hoist motor seal spraying hydraulic oil
- return to Dawson after unscrewing pipe on bottom
- (drill 5 hrs.)

August 26:

- disassemble spare hoist motor
- order seal kit
- buy wrenches, bolts, etc.

August 27:

- drive to site
- pack bearing/seal assembly to drill
- move drill ahead and lay down mast
- bearing/seal assembly could not be removed
- part chain and remove motor - pack to truck and drive to Dawson

August 28:

- remove bearings - O.K.
- change seals, drill and extract broken bolt
- get bit hard-faced

August 29:

- borrow torque wrench and re-torque bolts
- R. Cook arrived at noon
- drive to site
- install motor, hoist derrick, back over hole, pull and dump core
- change bit
- drill to 92' - lower 5' is a reddish, damp, partially frozen material which appears to be a de-watered, compressed clay/rock slurry
- great difficulty pulling pipe and dumping core
- return to Dawson @ 11:30 p.m.
- (drill 5 hrs., road 1 hr., Nodwell 1 hr.)

August 30:

- cook breakfast, make lunches, do dishes
- drive to site
- add oil
- change pipe jaws

- drill to 116' with great difficulty
- dump clay/scree core
- return to Dawson by 9:00 p.m.
- (drill 6 hrs., road 2 hrs., Nodwell 2 hrs.)

August 31:

- order pipe jaws

September 1:

- sent reminder to T. Skimming/B. Vatri that V.S.V. was to fax confirmation of ongoing participation in J.V. program
- pick up pipe wrench jaws - try to cut off to fit drill jaws - saw not powerful enough - take to N. Kat
- gas up, make lunch
- drive to F. Short's mine and discuss auger drilling with driller - progress slow - borrow pilot bead
- drive to Calder Ck. in 4x4
- repair brake line and fuel lines dislodged by willows on the trail
- walk to rig
- pick up tools
- load short drill pipe, tie pipe down, install bit, push mast over and lay down, repair tool cabinet hinge, load up rig equipment
- road Nodwell to pick up and pump 400 litres diesel - road back to new drill site
- road drill to Nodwell
- walk to line B and find hammer left behind
- load empty fuel and oil containers in pick-up and return to Dawson by 9:00 p.m.
- (road 2 hrs., Nodwell 2 hrs.)

September 2:

- pick up jaws at N. Kat
- pick up auger bit pilot at N. Metalic and deliver to F. Short
- look for helper Lee - his auger drill was gone and probably has drilling contract
- shop for cordless drill - borrow regular drill from G. McCully, load electrical generator
- borrow cordless drill from B. Callison, charge battery
- drive to drill - pump drill and carried tanks full - noted some water (from White Pass Petroleums?)
- drain 5 gal. from Deitz tank after running drill up steep side-hill
- install new jaws
- survey holes 8, 7 and lowest possible bedrock outcrop
- move drill to next drill site

- pack used parts to pick-up truck, new parts to drill - return to Dawson at 9:00 p.m.
- hire helper and buy tent trailer
- (road 2 hrs., Nodwell 2 hrs.)

September 3:

- locate helper in bar at 8:00 a.m.
- pick up groceries, supplies, trailer, helper's gear and drive to Calder
- set up tent trailer and eat lunch
- start hole 89-B-2 - move Nodwell around to be able to add drill pipe
- drill to 58', bit drilling very rapidly
- thawed clay and rock to 12' with pockets of air (thawed ice), gravel (dirty brown schist) to 35' clay and rock to 58'
- shut down at 8:00 p.m. and make dinner
- go to Redford and pick up one mattress
- (drill 7 hrs., road 1 hr., Nodwell 2 hrs.)

September 4:

- showers overnight
- breakfast and start drill - drill to 70' dumping twice
- dirty dark grey clay with gravel clasts below 60' - progress very slow with badly worn bit
- rotary bearings failed
- disassemble rotary drive, thrust bearing assembly and haul to pick-up
- lunch and pack up supplies
- drive to Dawson
- N. Kat cut bearing races off
- (drill 4 hrs.)

September 5:

- order new bearings from Vancouver
- take rotary drive assembly to Winton's to dress damaged bearing seats and cut new spacer shim
- order drill, air wrench and torque wrench, call re-torque requirements
- meet with R. Coke re: info. to date
- cook meals, pack food

September 6:

- pick up bearings and take to machine shop - press bearings and brass cage out of one bearing by applying pressure to wrong face
- rebuild bearing and put in swivel in improper manner

- expect bearings to last several weeks
- went to N. Metalic to pick up grinder and torque wrench (back-ordered)

September 7:

- pack perishable food and drive to Danny's cabin - Danny drunk
- return to Dawson
- pick Danny up, drive to drill site
- pack swivel to site on pole - grind off sides of two broken column studs and remove good studs for working space using jam nuts
- remove broken studs and install new ones
- install adaptor plate and grind down excess stud lengths
- try to work piston and rings into lower cylinder
- finally put pull down weight on drill head - rings jammed; disassemble and find 1 piston ring broken
- remove lower piston assembly and take to Dawson

September 8:

- order piston rings - could not locate right size - went to service station and found GMC diesel with same specs
- return to N. Kat and order torque wrench, grinder and angle drive air socket
- sketch out bearing combination for proper loading

September 9:

- unable to locate helper, Danny
- arrange to hire auger drill owner, Lee Hakki, starting tomorrow
- pick up new piston rings
- drive to Calder Creek and pack parts to drill rig
- install lower piston ring assembly
- torque column bolts - one fatigued bolt broke off
- torque thrust bearings on swivel shaft to 1500 ft. lbs. using pipe wrench and snipe
- returned to Dawson

September 10:

- helper not home
- L. Knoll not available
- drive to drill
- drill and tap swivel compression nut keeper
- remove all column stud nuts
- grind flat sides on broken stud, remove and replace
- re-torque all nuts to 100 ft. lbs.
- make up rope sling and hoist swivel into place
- line up and install bolts

- rotary drive toggles would not swing past housing lip
- return to Dawson - oedometer 87,600 km.

September 11:

- wait on helper Lee until 10:00 a.m.
- drive to drill
- pry rotary drive linkage off, grind and reinstall - button up head
- work pipe 1 hour to free - pipe full to top with water, crushed rock/mud (frozen below 30')
- material in core barrel (68 - 70') was slightly sub-angular rock in clay matrix
- took sample
- drilled to 74 1/2' trip out to recover grey clay and rock as above - some clasts sub-rounded - pipe 1/2 full of water/mud
- add pipe and drill to 79' - recover 3' mostly round gravel in a clay matrix and 30' of fill at 8:00 p.m.
- helper recommended auger drill to clean, ream and deepen hole as coring rate less than 3'/hours and drill will not stand this abuse
- ate dinner and returned to Dawson by 11:00 p.m.
- (drill 6 hrs., road 1 hr., Nodwell 2 hrs.)

September 12:

- pick up Lee and drive to Frank Shorts on Hunker Ck.
- talked with driller, Steve, who gave me a short piece of auger flight to make an adaptor
- borrowed home-made bit as sample
- could not locate blank fishtail bit - bought bit pockets and points
- delivered parts to Winton's Machine Shop - Lee unable to borrow or rent additional auger flights
- pack up truck

September 13:

- depart Dawson with Lee Hakki at 7:30 a.m.
- driver to drill
- pack water to drill
- pick up pipe and run into 40' dump 20' water and 20' rock and clay
- ran in to 55' - below 20' water out of top pipe with air hose
- ream to 70' - dump 60' mud and rock
- ream to 75' - trip out full string of water and mud/rock/gravel coverings - gave up
- lay down pipe - move rig - change 2 cleats
- return to Dawson by 9:00 p.m.
- (drill 8 hrs., road 1 hr., Nodwell 1 hr.)



September 14:

- Richard Coke and friend came for breakfast
- reviewed plans with Coke
- pick up mail, groceries
- drive to machine shop and make adaptor for auger pipe
- drive to Hakki's and check measurements
- look for Hakki - rain - have a cold

September 15:

- drive by Hakki's cabin at 8:00 a.m.
- Hakki hung-over, in bed and had "another commitment"
- take care of bills, mail, make field meals, repack gear
- drill auger adaptor and look for auger flight to rent

September 16:

- pick up Hakki and drive to Calder
- pack up drill and Nodwell
- scout area upstream of clearing; surface is lower elevation, frozen but there is some risk in having trouble locating a turning gravel deposit
- check downstream
- cut trail with power-saws
- move drill in and block up
- drill to 58' with boulders at 5', 15' and 20' - into clay at 30'
- various rock layers in clay to 58'
- stay in tent at -10°C
- (drill 6 hrs., road 2 hrs., Nodwell 2 hrs.)

September 17:

- change chain tension to make pipe hang straight in derrick
- drill 70' - hole caving and some water coming in
- trip out every 5 - 10' to empty pipe when a weight lowered down the pipe confirms core barrel to be full
- drill to 78' and trip out
- lost part of core
- material below 70' is clay with some water - rounded clasts
- hole very difficult to pull off bottom - suspect hole caving behind withdrawn pipe due to thawing action of bit, vacuum of withdrawal and water from above
- gave up and moved rig back to campsite
- picked up 25' of Hakki's auger flight and drilled down in 10 minutes
- drive to Dawson
- (drill 8 hrs., road 2 hrs., Nodwell 2 hrs.)

September 18:

- design auger bit out of styrofoam
- take to machine shop
- call other drill owners trying to rent flights - none available

September 19:

- continue looking for flights to rent - none available
- Richard and Olivia overnighed

September 20:

- call C.A. Teare concerning ordering auger flights
- arrange for payment
- order flight
- check shipping options
- take bit pattern to machine shop

September 21:

- clean up house, do laundry, check on bit fabrication

September 22:

- wait on auger equipment, pick up bit

September 23:

- drive to Whitehorse at 2:00 a.m.
- pick up flight, etc., pay by Visa
- pick up groceries
- drive to Dawson by 8:00 p.m.

September 24:

- pick up Hakki and drive to Calder Ck
- load auger equipment
- road to hole #9
- auger to 63'
- shut down at 8:00 p.m. and return to Dawson
- (drill 5 hrs., road 2 hrs., Nodwell 2 hrs.)

September 25:

- pick up Hakki, drive to rig
- auger to 89'
- hole unloading slurry of rock, clay
- drop 40' of flight and bit while tripping out for core bbl.
- top pin not seated

- borrow coil spring fishing tool from Gold City
- got hold of fish, lost it, wrecked fishing tool
- return to Dawson at 10:00 p.m.
- (drill 4 hrs.)

September 26:

- search junk yards for fishing tool parts
- draw specs for alternative tools
- all welders busy
- arrange for Gerry McCally to fabricate tool
- build overshot

September 27:

- run in hole with fishing tool
- empty tool of rocks and clean flights
- put on fishtail bit and clean to top of fish
- ream to bottom with overshot and empty rocks (twice)
- latch onto fish
- work drill string
- oscillate at low RPM for 3 hours - fish came free - recover fish - dark
- (drill 7 hrs.)

September 28:

- pick up new bit
- run in and ream to bottom
- unable to pull out without rotating to left
- try to ream boulders, hole caving badly - shut down for dark
- (drill 7 hrs.)

September 29:

- lay down rig - load up - move upstream
- rig up
- Elev = #9 less 25' - hill-side steep - block mast vertical
- chop out moss - 0 - 2 = muck, 2 - 30 brown gravel, 30 - 48' = grey mud and scree
- 48 1/2 - 52 very hard, dry bedrock - all frozen (Hole A1)
- (drill 6 hrs., road 2 hrs., Nodwell 2 hrs.)

September 30:

- load up rig
- move uphill to #9 elevation
- 0 - 4 muck, 4 - 24 grey mud and rock, 24 - 46 gravel (dirty), 46 - 55 mud, rock grading to reddish decomposed bedrock - drill to 75 to confirm bedrock - soft slightly damp schist at total depth (Hole A2)

- load up rig
- pack up tent trailer and return to Dawson at 8:00 p.m.
- (drill 7 hrs., road 2 hrs., Nodwell 2 hrs.)

October 1:

- truck front wheel problems
- try to arrange flight to Matson - aircraft busy
- call R. Coke re new drill data

October 2:

- move uphill to Hole #3
- drill grey clay with rock layers at 24' - 25', 40 - 44, 57 - 58'
- brown decomposed bedrock 72 - 83' (T.D.)
- bottom material nearly dry soft schist with few if any fractures
- move rig uphill, survey, clear away moss to find wet muck - move rig to frozen spot, rig up
- return to town by 8:30 p.m.
- (drill 7 hrs., road 2 hrs., Nodwell 2 hrs.)

October 3:

- warm up rig, thaw air lines, add hydraulic oil, transfer diesel fuel
- change to fishtail bit
- drill Hole A4
- muck 0 - 4', drill to 85', rock layers at 20 - 25', 35 - 36', 65 - 75 and 80 - 85'
- seal blew on shaft of one rotary motor
- pull out of hole without rotating
- remove motor
- return spring overshot to Gold City
- return to town and take motor apart
- (drill 8 hrs., road 1 hr., Nodwell 3 hrs.)

October 4:

- order seal kits
- check air and truck schedules and advise Mainline Hydraulics re: shipping
- fly to Matson Creek to look for spare motor seals
- pick up complete set of hydraulic filters for drill
- oedometer on 4x4 = 90,137 km.

October 5:

- chain lower part of lease to select a possible future shallower drill site
- wait on parts

October 6:

- make numerous calls looking for lost parts
- pick up parts at Alkan Air
- install seals and re-assemble rotary motor

October 7:

- install motor on drill
- shaft seal would not hold - replace all internal seals
- reassemble rotary system
- deepen Hole A4 to 100'
- bedrock (soft schist from 85 - 100', move drill to Hole A5
- (drill 6 hrs., road 1 hr., Nodwell 1 hr.)

October 8:

- helper unavailable
- drive to Miller Creek to review Calder Creek data with Klondike Golds' Richard Coke

October 9:

- drill Hole A5
- 0 - 10' muck
- rock at 10 - 26, 26 - 36 (very hard), 49, 54 - 56', shattered quartz 85 - 90'
- O. & R. Coke overnighted at Dawson
- (drill 7 hrs.)

October 10:

- do paperwork
- pick up supplies, fuel, groceries
- change oil in pick-up

October 11:

- finish Hole A5: out of quartz material at 91'
- grey mud and rock fragments (red schist) 91 - 100 - hard schist 102 - 103 and 107 - 110 1/2
- soft dry grey schist 110 1/2 - 125
- move rig downhill
- (drill 9 hrs., road 2 hrs., Nodwell 2 hrs.)

October 12:

- drill Hole A6 between #A1 and A2
- sand and pebbles from 5 - 20, gravel 20 - 35, mud 35 - 45
- schist, decomposed 45 - 65
- move to #A7
- muck 0 - 4
- gravel 4 - 35 - mud with scattered sub-angular schist particles to T.D. of 45'
- (drill 8 hrs., move 2 hrs., Nodwell 2 hrs.)

October 13:

- order new batteries, buy battery cables
- cook field lunches

October 14:

- trouble starting drill motor - ice in fuel filters
- G.M. battery shot
- alternator bracket on Nodwell broken
- go to Tatlow camp and weld bracket
- take belly pan off drill carrier and heat motor with torch
- thaw out Dietz engine
- survey line A and across pup creek
- move equipment downhill
- drill N1; muck 0 - 15
- scree and gravel 15 - 18, very hard bedrock or boulders 18 - 20
- soft, wet schist decomposed becoming dry at 35
- #N-2 - muck 0 - 18, scree and gravel 18 - 21 - drill to 24 in schist - take sample to town to confirm this
- (drill 5 hrs., road 2 hrs., Nodwell 2 hrs.)

October 15:

- pick up 400 litres fuel
- trouble starting drill motors
- continue N-2 24 - 45 - all bedrock becoming dry
- drill N-3 near Line B - muck to 15 - hard rock 15-20 - bedrock, becoming dry 20 - 40
- walk around trying to figure things out
- move equipment back to road and pump off fuel
- take rented auger equipment to town
- (drill 5 hrs., road 2 hrs., Nodwell 2 hrs.)

October 16:

- survey on north hill-side 1 mile upstream
- cut trees off road
- move drill

October 17:

- drill in road 0 - 20' - two holes
- all decomposed bedrock, reddish, becoming firmer at depth
- change batteries in a.m.
- power saw trees to start trail uphill
- chain hill-side
- (drill 5 hrs., road 3 hrs., Nodwell 2 hrs.)

October 18:

- cut 1000' of drill trail up hill-side
- drill # H1 muck 0 - 4 mud and scree 4 - 12
- rock 12 - 15
- dry mud (ground schist?) 15 - 40
- # H2 muck 0 - 7 - bedrock? 7 - 20
- # H3 muck 0 - 2 - bedrock? 2 - 19
- (drill 7 hrs., road 3 hrs., Nodwell 3 hrs.)

October 19:

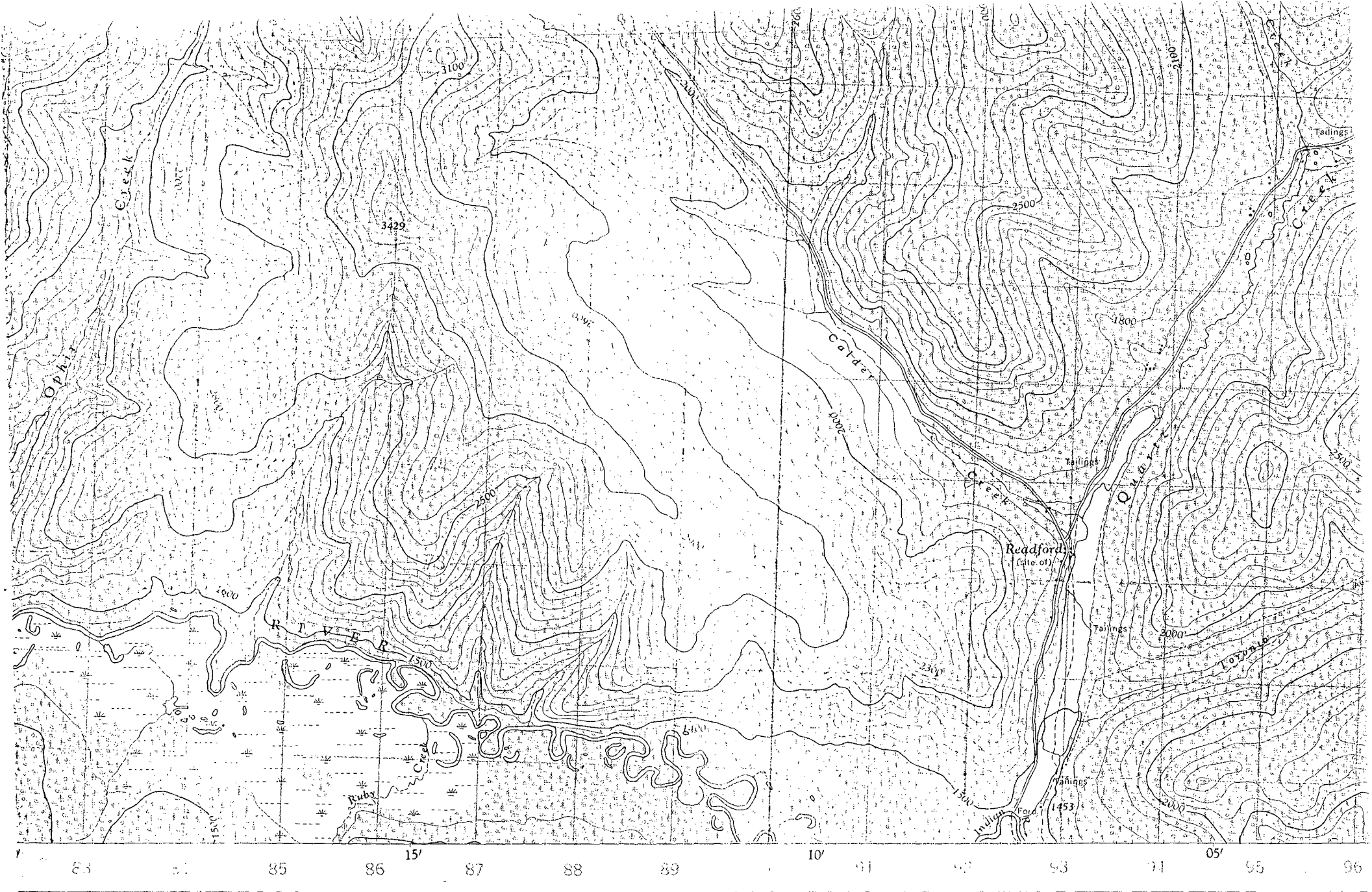
- drill H4, 5, 6, 7 - all 1 - 3' muck then bedrock to 20'
- move to line C and drill C9/6
- muck 0 - 5
- sand 5 - 15 - mud grading to slightly decomposed schist 15 - 40
- move downhill 1/2 way between 9 and 8 and drill C8/9: as C9/6
- move to C5/6 and drill to 20'
- 0 - 5 muck, 5 - 20 bedrock decomposed
- move drill back to road
- pump off 200 litres diesel from pick-up
- (drill 9 hrs., road 2 hrs., Nodwell 2 hrs.)

October 20:

- plot data, do reports

October 21 - November 5:

- make drill repairs, do assessment work on Sixty Mile leases
- drive to Whitehorse
- fly to Nanaimo



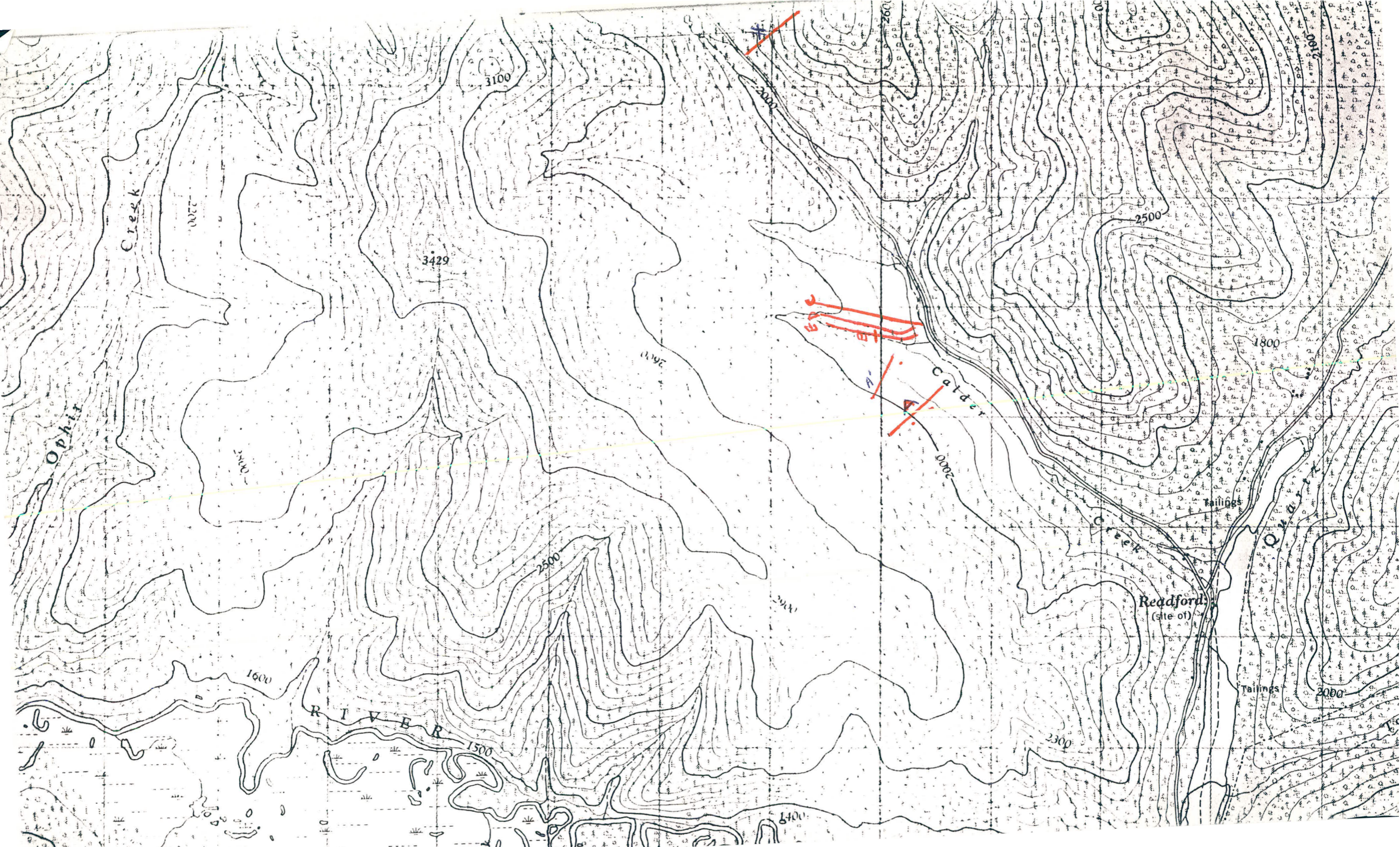
# GRAND FORKS

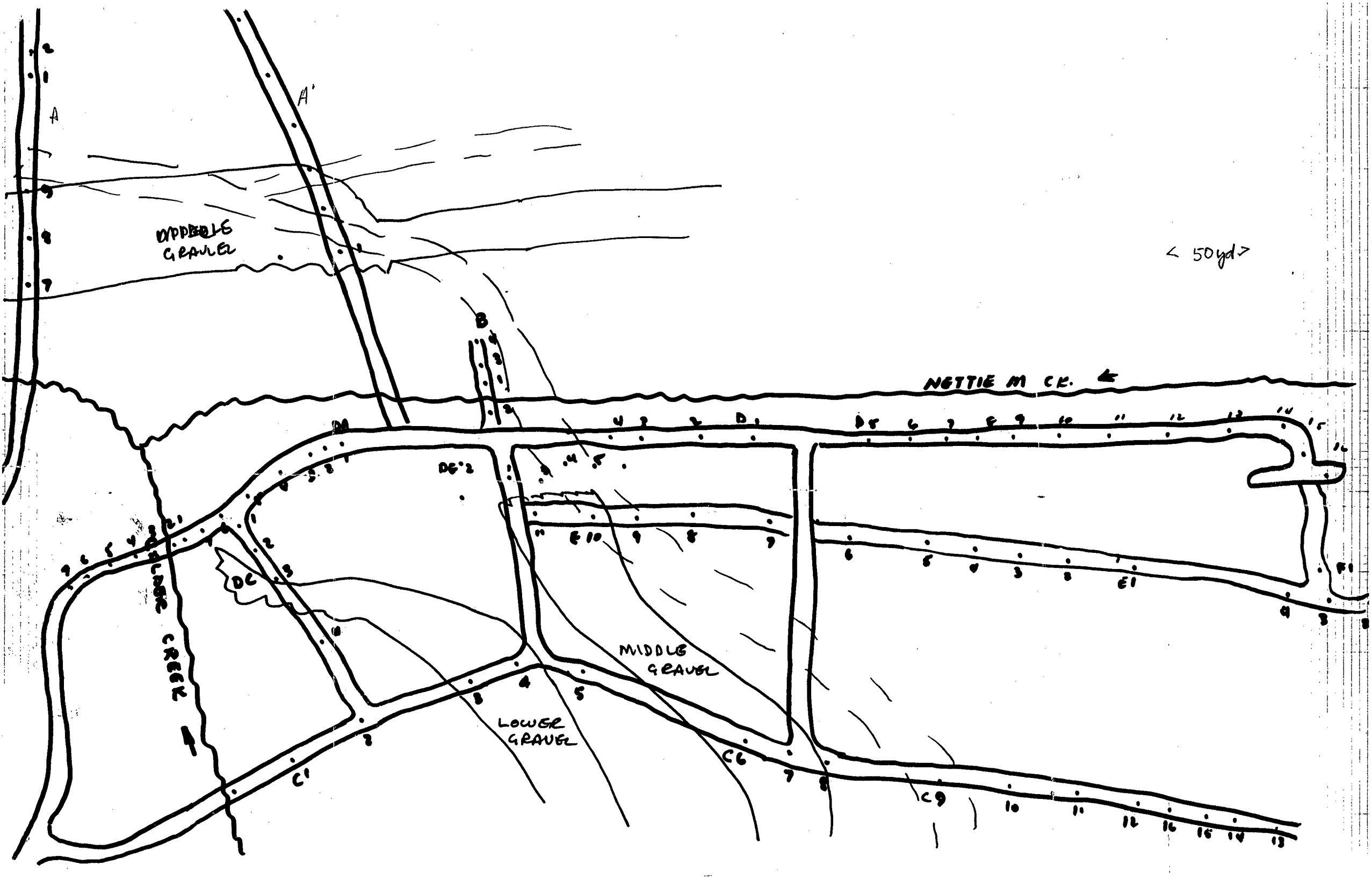
## YUKON TERRITORY

SCALE 1:50,000 ÉCHELLE

Établie  
LA C.  
RELEV  
aérien  
Ces ca  
minist







UPPER GRAVEL

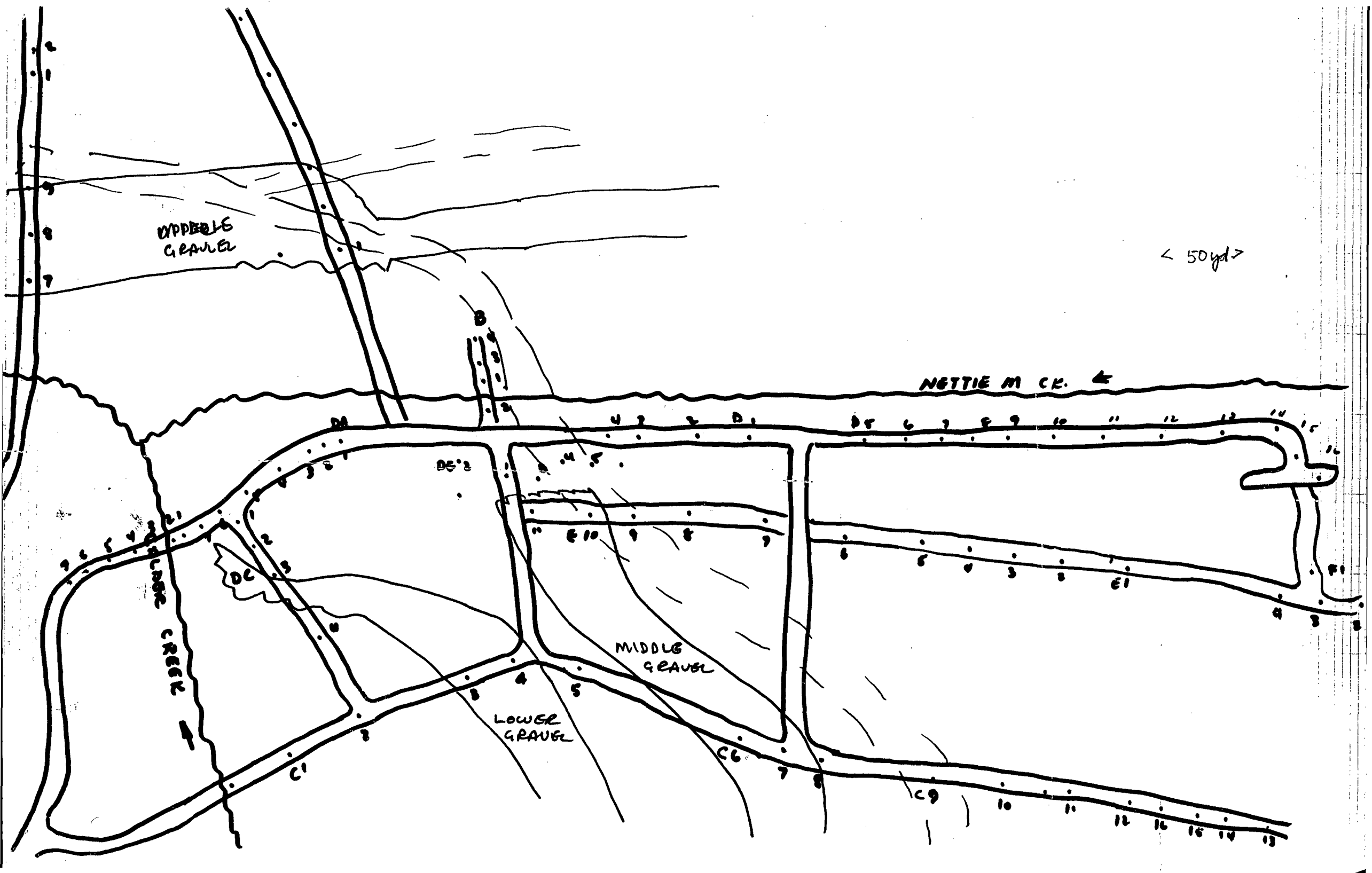
< 50 yd >

NETTIE M. CR.

LOWER CREEK

MIDDLE GRAVEL

LOWER GRAVEL



0 100 200 300 400 500 600 700 YARDS

GOLDMARK MINERALS LTD.  
CALDER CREEK, YUKON, 1989  
CROSS-SECTION OF LINE 'C'

BENCH LEASE

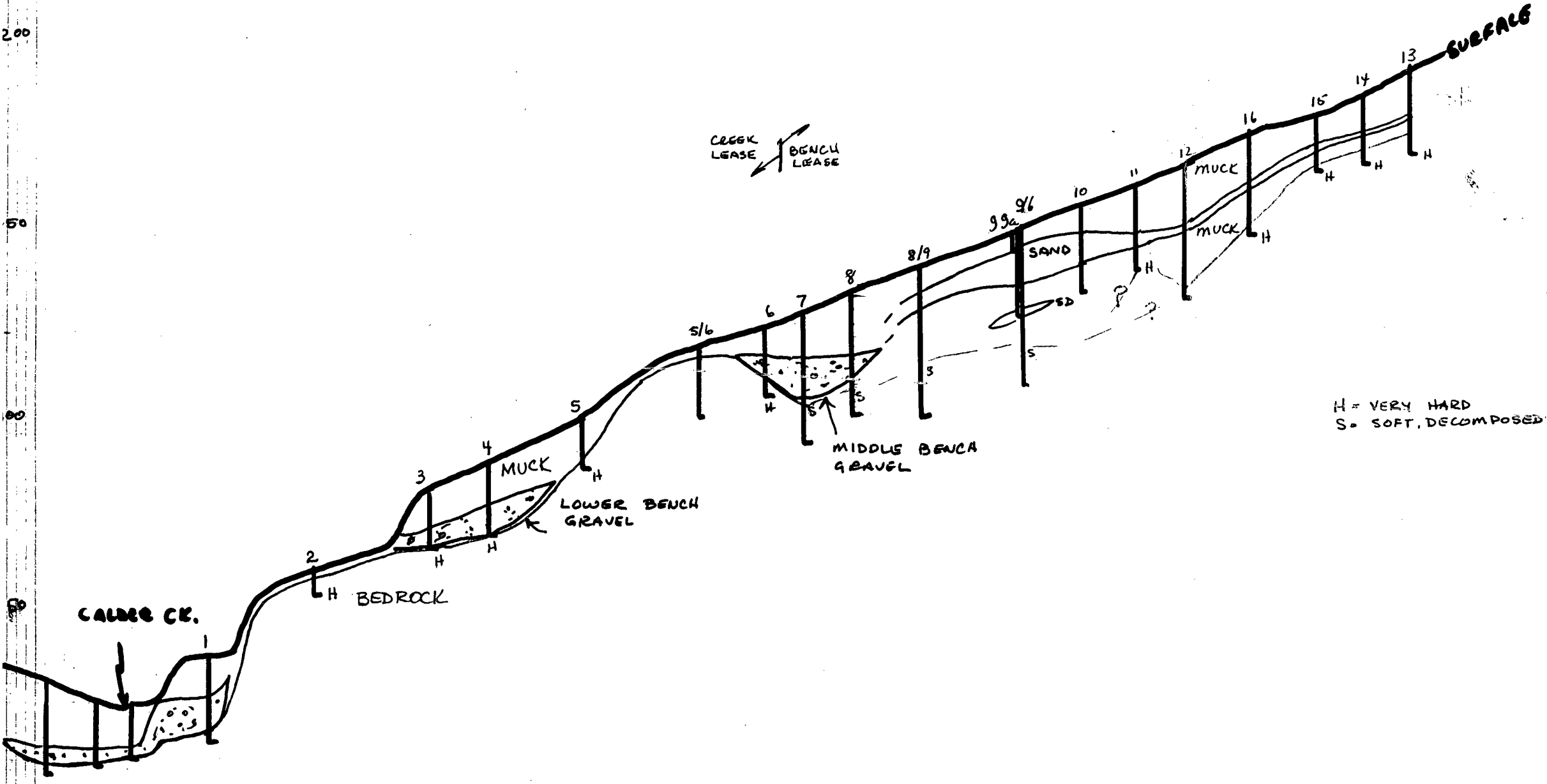
200

50

100

CREEK LEASE  
BENCH LEASE

SURFACE



H = VERY HARD  
S = SOFT, DECOMPOSED

0 100 200 300 400 500 600 700 YARDS

GOLDMARK MINERALS LTD.  
CALDER CREEK, YUKON, 1989  
CROSS-SECTION OF LINE 'C'

BENCH LEASE

200

150

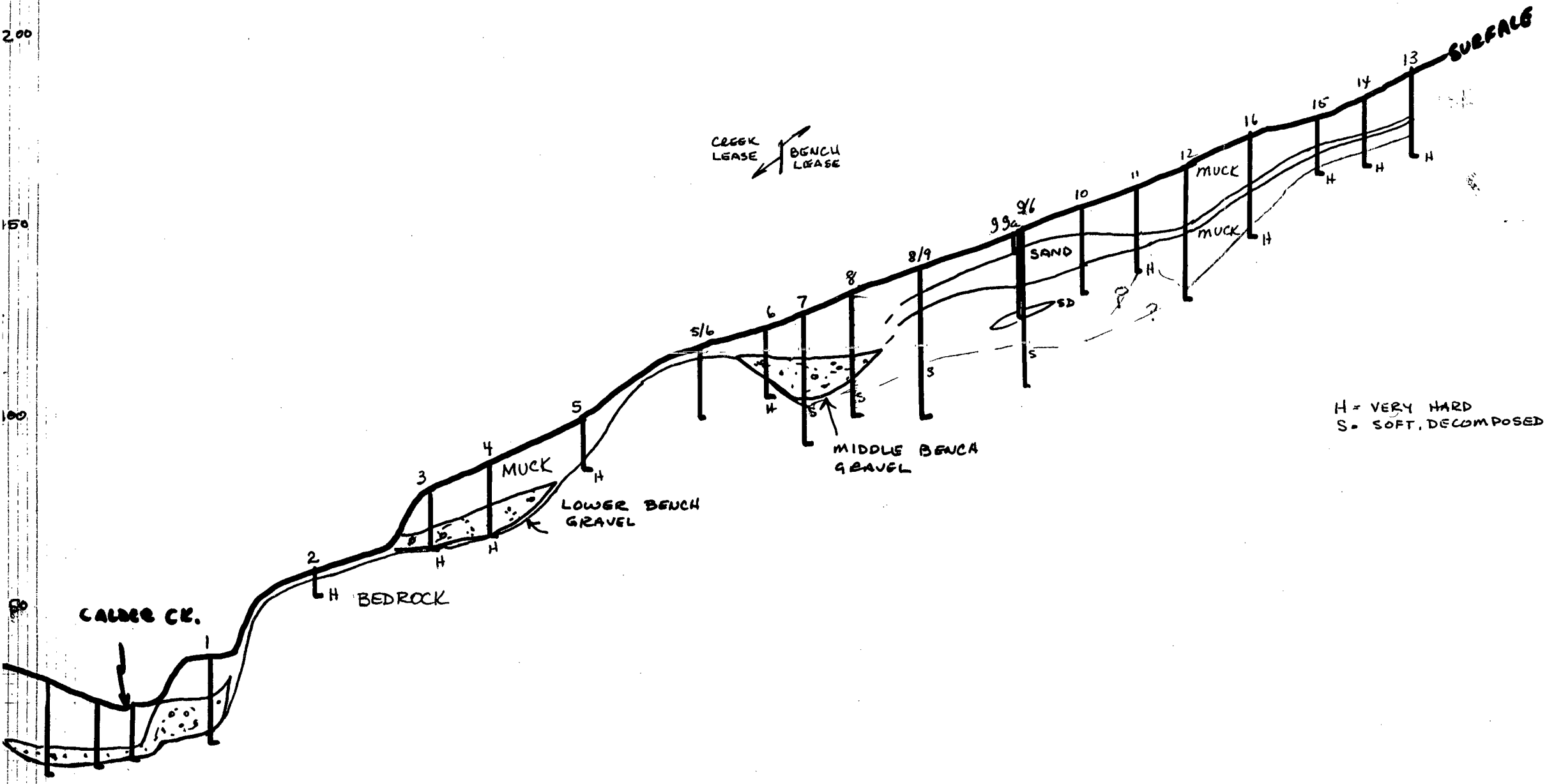
100

50

0

CREEK LEASE BENCH LEASE

SURFACE



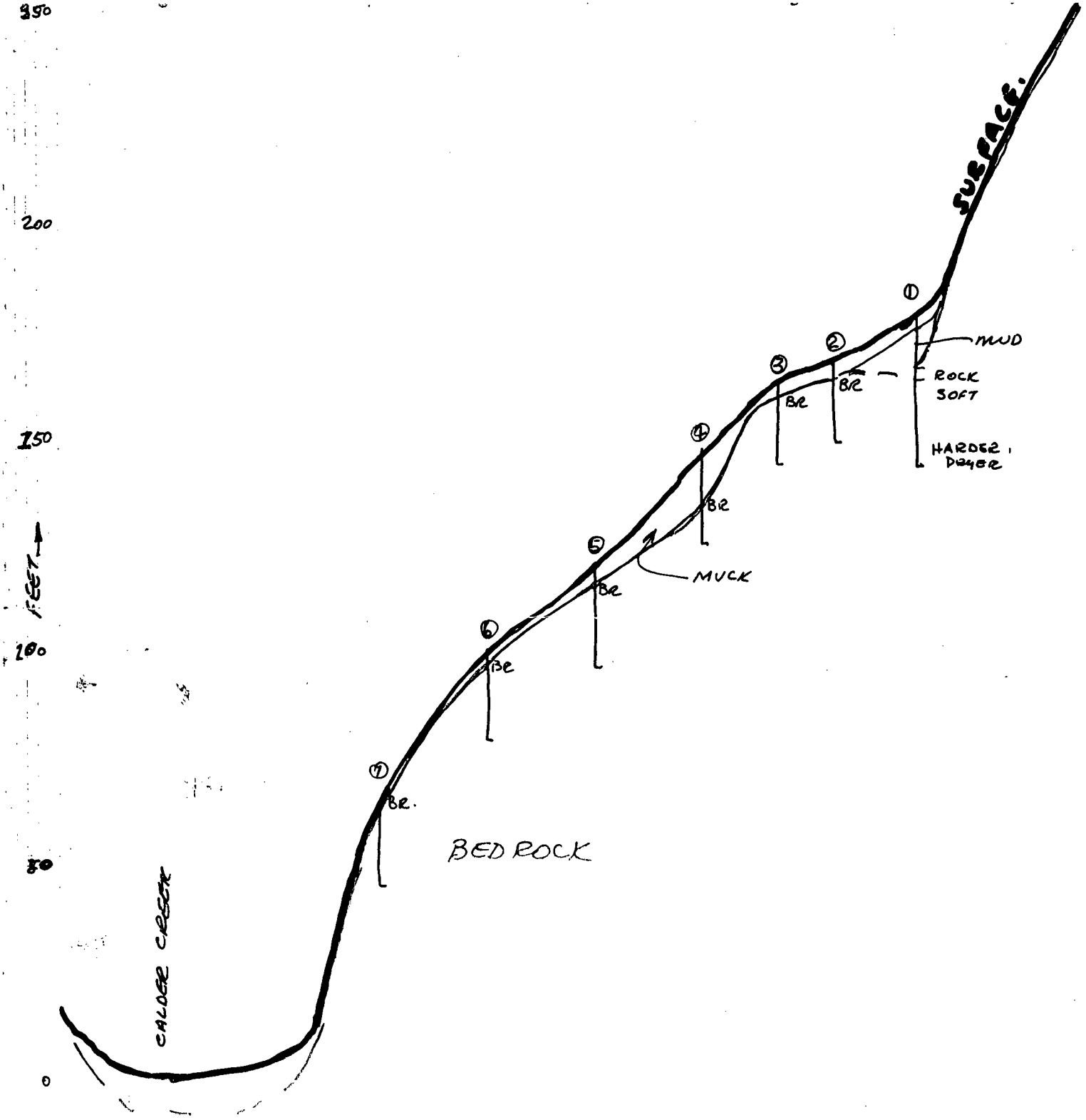
H = VERY HARD  
S = SOFT, DECOMPOSED

GOLDMARK MINERALS LTD.  
CALDER CREEK, YUKON 1989  
ALTIMETER/CHAIN SURVEY  
AND 6" AUGER DRILL

OCTOBER 1989  
TOTAL FOOTAGE 159'  
BEDROCK IS RED DECOMPOSED  
GRADING TO BROWN, SOFT,  
LESS FRACTURED.

D.H. BICKELL

X

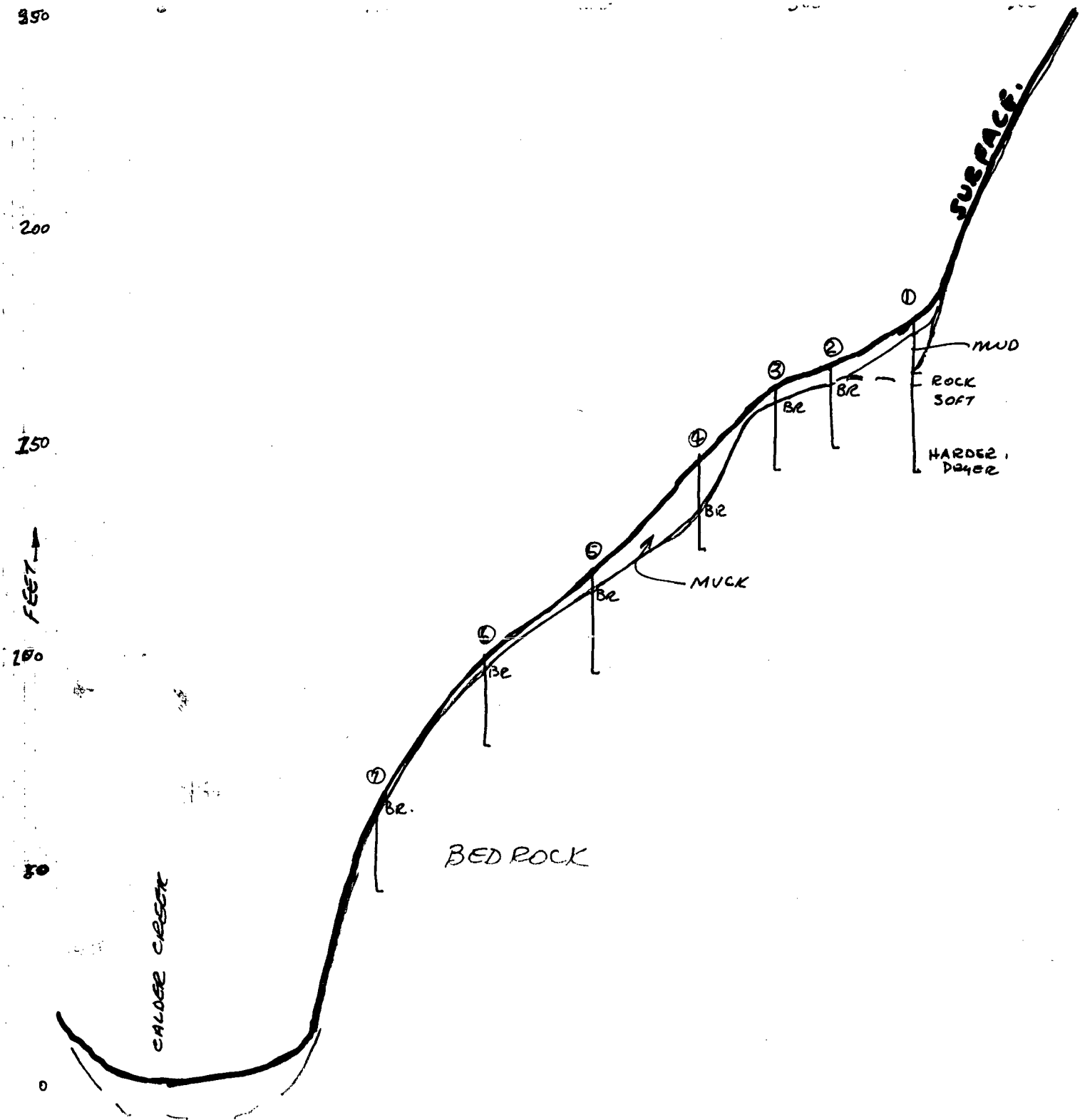


GOLDMARK MINERALS LTD.  
CALDER CREEK, YUKON 1989  
ALTIMETER/CHAIN SURVEY  
AND 6" AUGER DRILL  
OCTOBER 1989

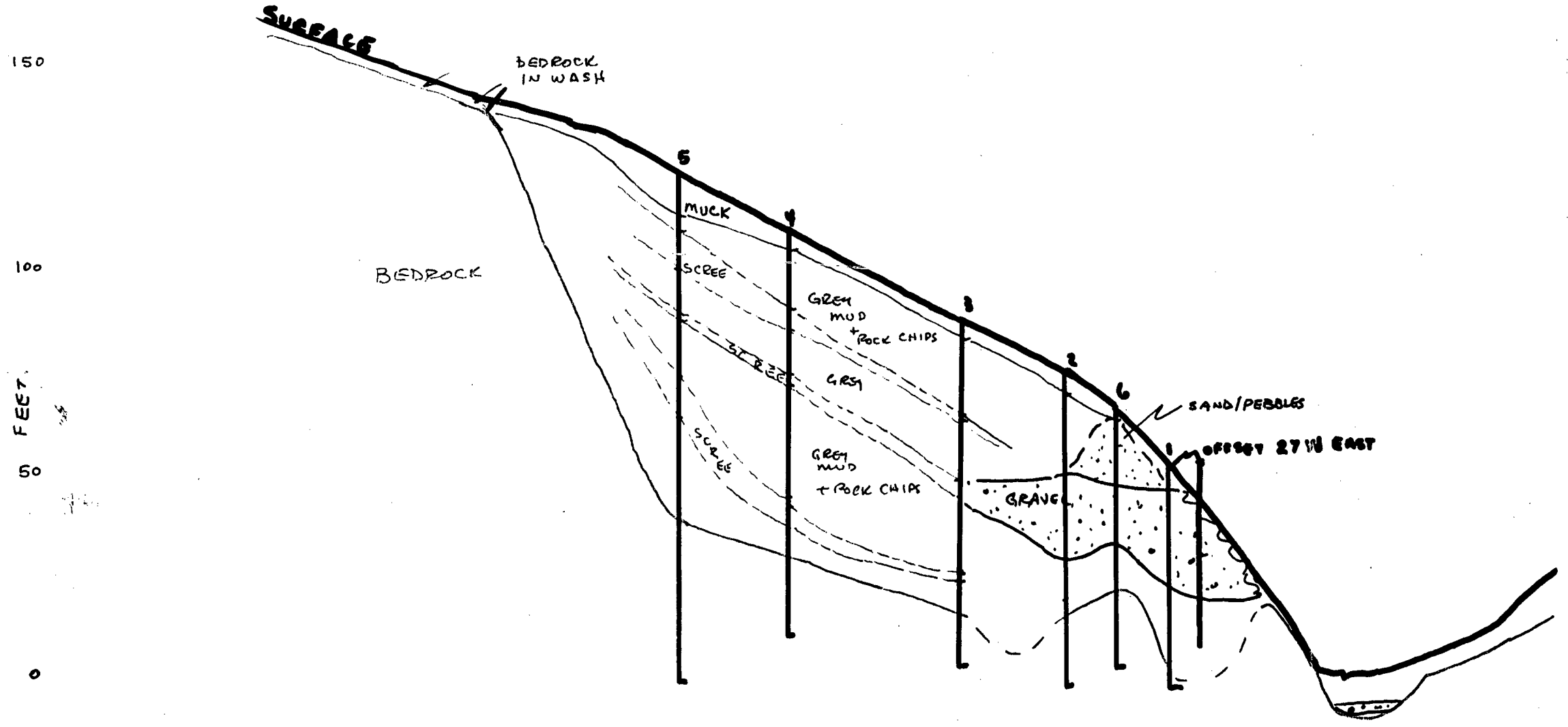
TOTAL FOOTAGE 159'  
BEDROCK IS RED DECOMPOSED  
GRADING TO BROWN, SOFT,  
LESS FRACTURED.

D.H. BICKELL

X



200  
500 400 300 200 100 0  
YARDS  
A'





YARDS

200

500

400

300

200

100

0

A'

150

100

FEET

50

0

**SURFACE**

BEDROCK  
IN WASH

BEDROCK

5

MUCK

SCREE

GREY  
MUD  
+ ROCK CHIPS

GREY

GREY  
MUD  
+ ROCK CHIPS

BT B 22

SCREE

3

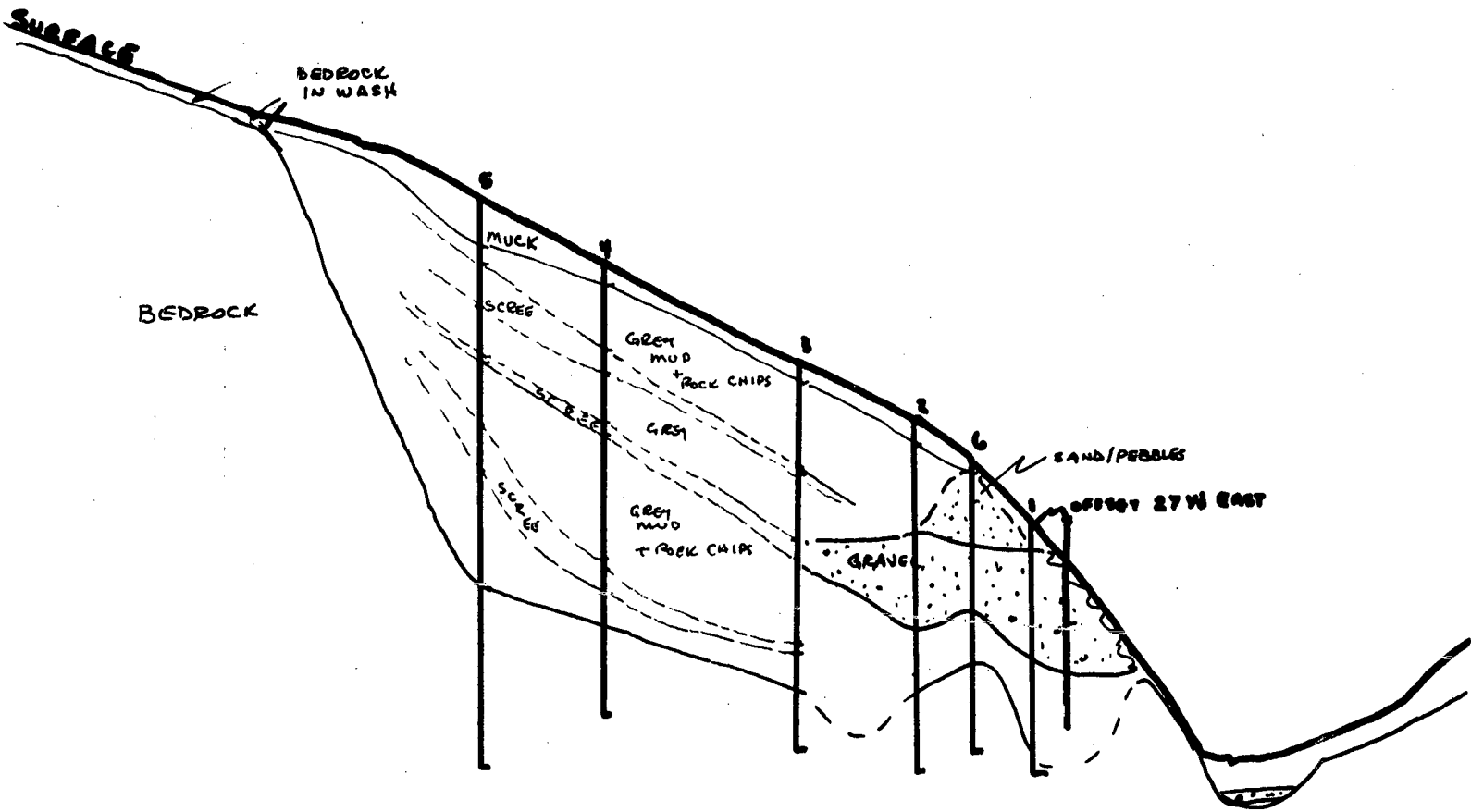
2

6

SAND/PEBBLES

OFFSET 27 W EAST

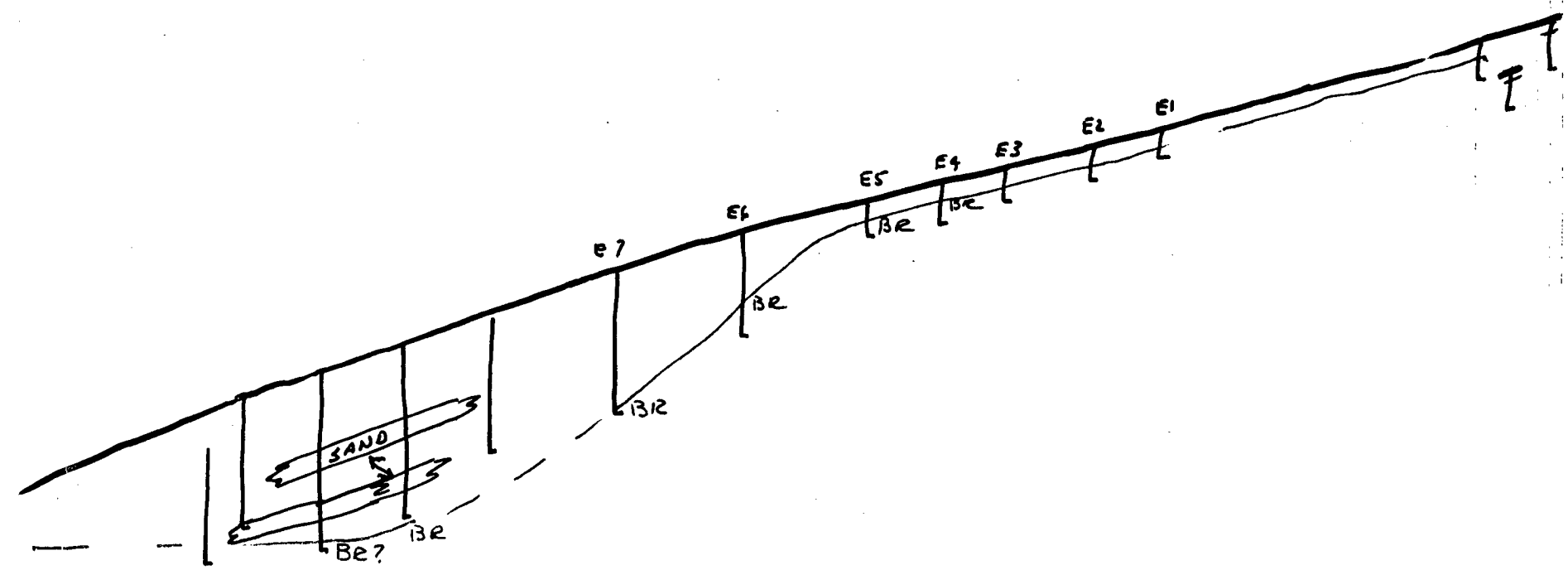
GRAVEL



200 0 100 YARDS 200 300 400 500 600

GOLDMARE MINERALS LTD.  
CALDER CREEK, YUKON 1989  
LINE E, F. DE JUNE '89  
ALONG RIM OF NETTIE M.  
TRIBUTARY.

150  
100  
50 FEET  
0



BEDROCK  
 - BM @ 200' SOUTH  
 \* WATER LEVEL  
 NETTIE M.  
 PUP CREEK

← est Calder  
 Creek  
 @ Line C  
 X-124

200

0

100 YARDS

200

300

400

500

600

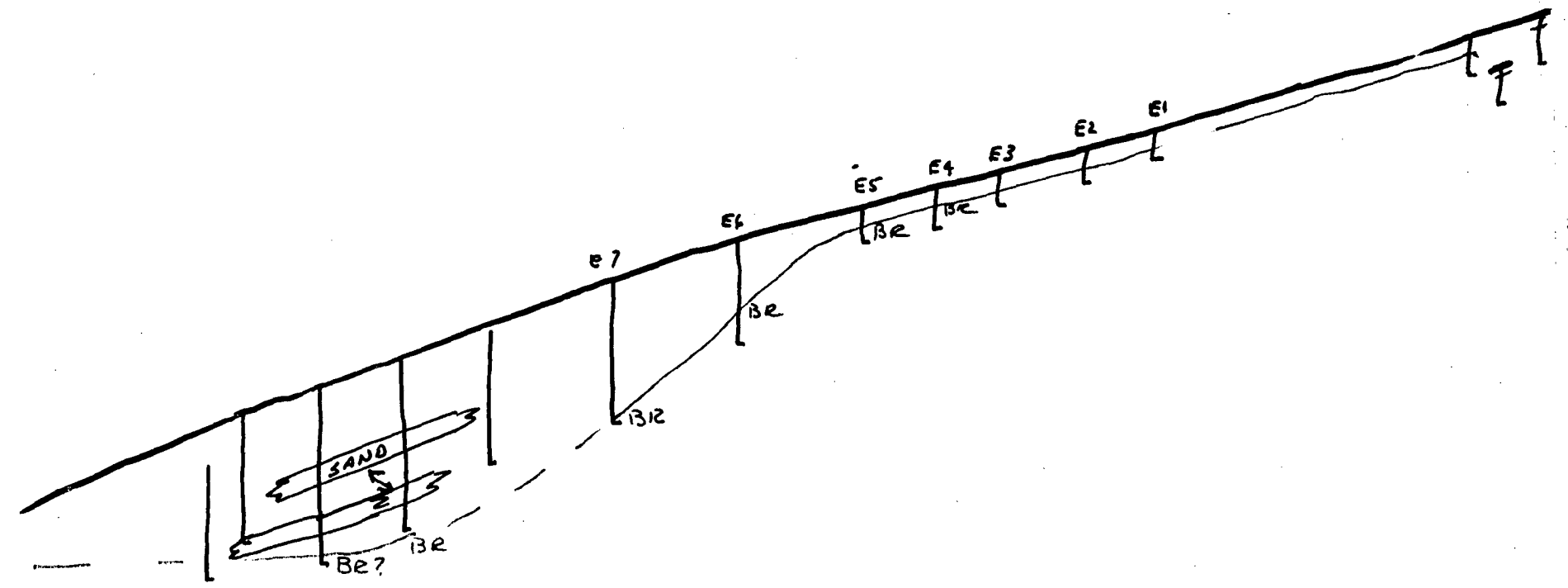
GOLDMARE MINERALS LTD.  
 CALDER CREEK, WYOM 1989  
 LINE E, F. DE JUNE '89  
 ALONG RIM OF NETTIE M.  
 TRIBUTARY.

150

100

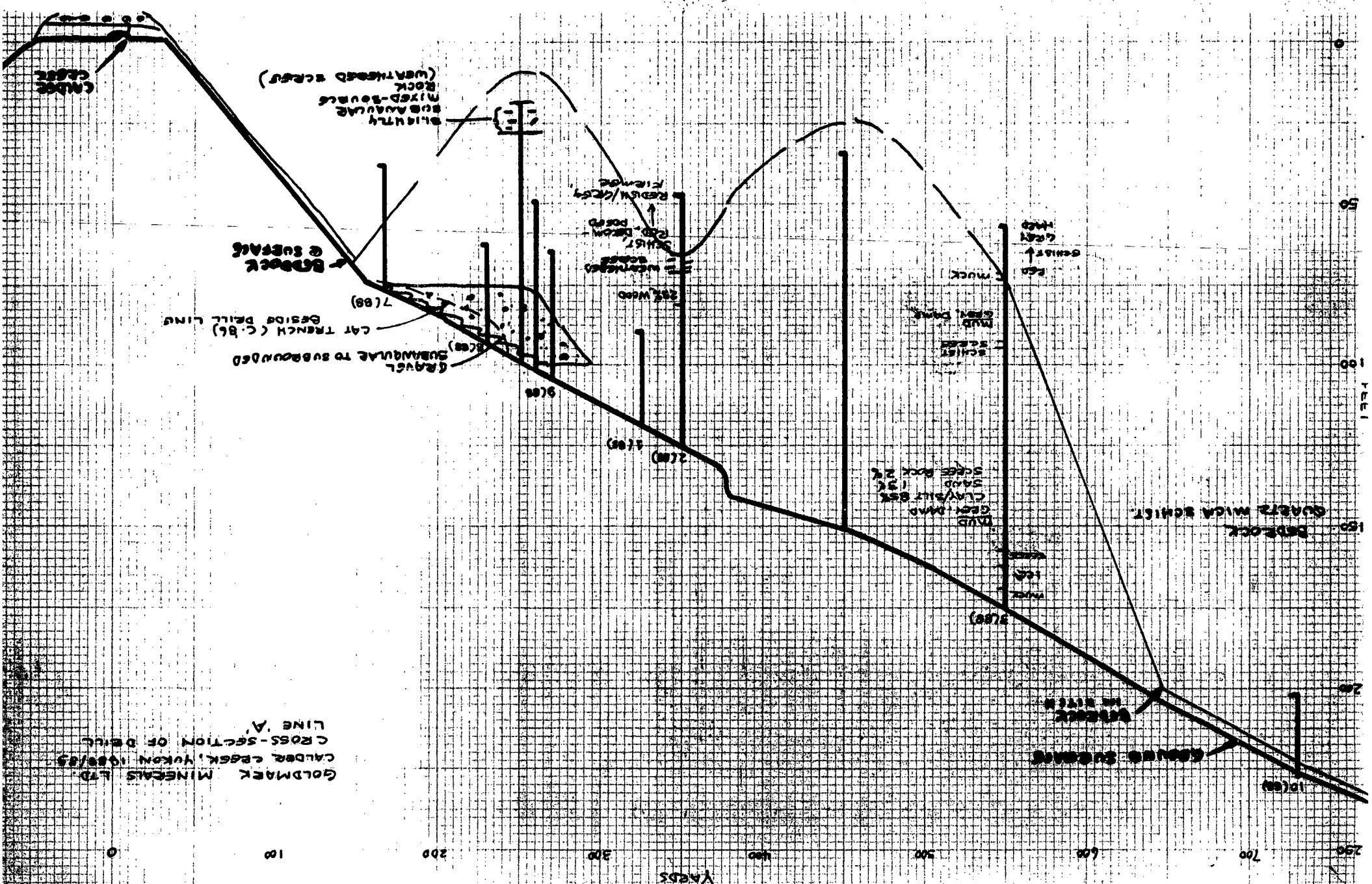
50 FEET

50



— BM @ 200' SOUTH  
 \* WATER LEVEL  
 --- NETTIE M.  
 PUP CREEK

← est Calder  
 Creek  
 @ Line C  
 X-104



GOLDMARK MINERALS LTD.  
 CROSS-SECTION OF DRILL  
 LINE A. CALDER CRACK, YUKON 1988/89

GRAVEL  
 SUBSAGUAL TO SUBSAGUAL  
 CAT TRENCH (C. 86)  
 BEHIND DRILL LINE  
 7(88)

SHALTY  
 MUD-SOURCE  
 ROCK  
 (WEATHERED SURF)

REDUCTION/DEFORMATION  
 DEFORMATION  
 DEFORMATION

MUD  
 CLAY/SILT STK  
 SAND  
 SILT  
 MUD

QUARTZ MICA SCHIST

WATER TABLE

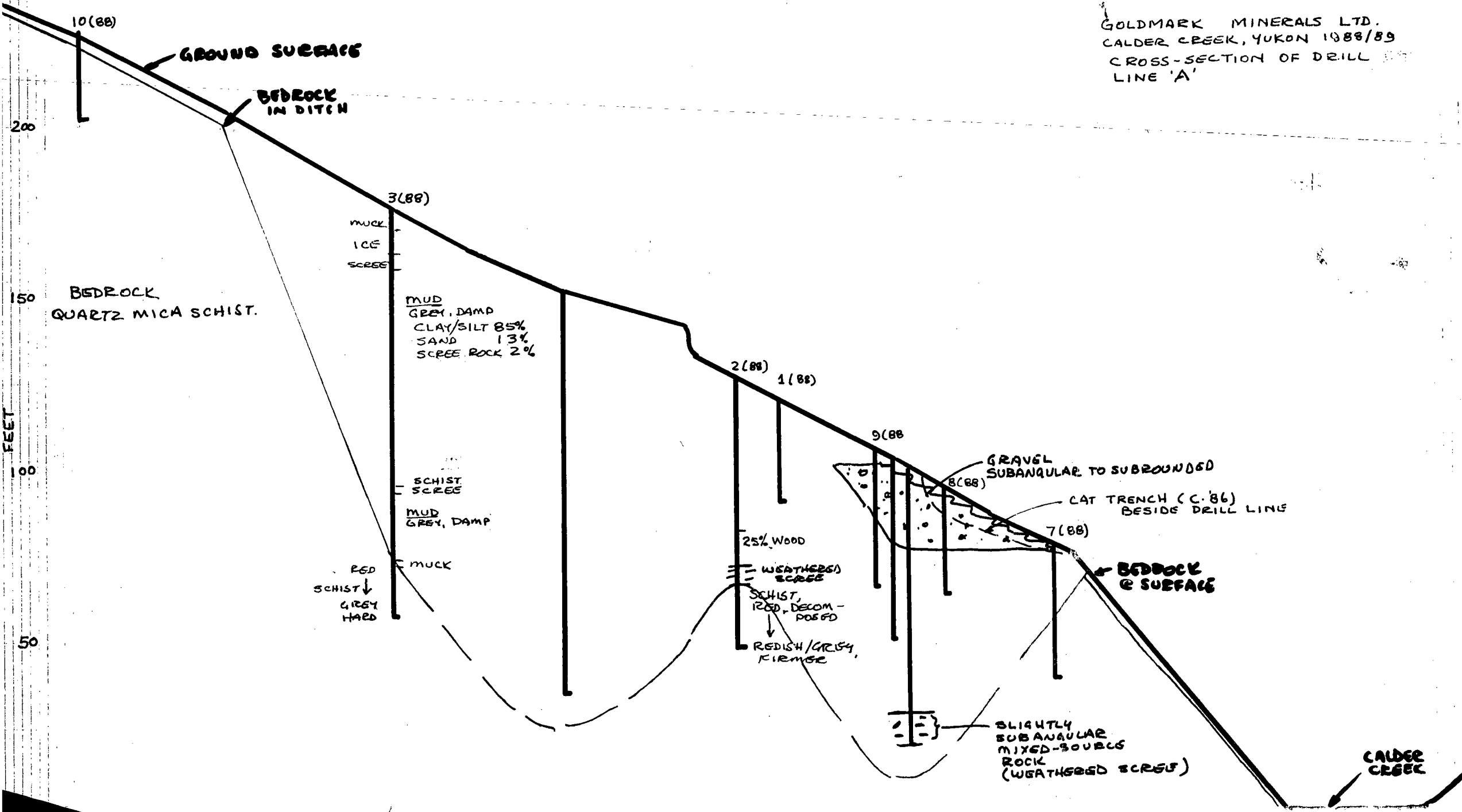
YARDS

FEET

YARDS

250 700 600 500 400 300 200 100 0

GOLDMARK MINERALS LTD.  
CALDER CREEK, YUKON 1988/89  
CROSS-SECTION OF DRILL  
LINE 'A'



GROUND SURFACE

BEDROCK IN DITCH

BEDROCK  
QUARTZ MICA SCHIST.

MUCK  
ICE  
SCREE

MUD  
GREY, DAMP  
CLAY/SILT 85%  
SAND 13%  
SCREE ROCK 2%

SCHIST  
SCREE

MUD  
GREY, DAMP

RED  
SCHIST  
↓  
GREY  
HARD

MUCK

2(88) 1(88)

9(88)

GRAVEL  
SUBANGULAR TO SUBROUNDED

CAT TRENCH (C. 86)  
BESIDE DRILL LINE

8(88)

7(88)

BEDROCK  
& SURFACE

25% WOOD

WEATHERED  
SCREE

SCHIST,  
1200' DECOM-  
POSED  
↓  
REDISH/GREY,  
FIRM

SLIGHTLY  
SUBANGULAR  
MIXED-SOURCE  
ROCK  
(WEATHERED SCREE)

CALDER  
CREEK

FEET

50

100

150

200

250

700

600

500

400

300

200

100

0