Recent work has examined the extent to which individuals seek alcohol to enhance positive experiences (reward drinking) or relieve aversive states (relief drinking), and processes underlying reward/relief drinking correspond to neurobiological adaptations within the addiction cycle. Previous findings indicate the utility of reward/relief drinking phenotypes in matching patients to AUD pharmacotherapies, with high reward drinkers responding better to naltrexone versus placebo. Practical reward/relief drinking measures with good psychometric properties are needed to translate these findings to clinical practice. We examined the reliability and construct validity of a recently developed brief measure of reward/relief drinking, the Reward and Relief Inventory of Drinking Situations (RR-IDS). Sixty-five individuals (51% female; 77% White, 8% multiracial, 6% American Indian, 9% other racial identities; 49% Hispanic; mean age=31.6 years) with high-risk alcohol use based on the AUD Identification Test were recruited in New Mexico. The RR-IDS reward ($\alpha=.866-.897$) and relief ($\alpha=.905-.917$) subscales demonstrated good internal consistency and test-retest reliability over one month (reward intraclass correlation coefficient (ICC)=.652; relief ICC=.722). The RR-IDS reward subscale was associated with greater social and enhancement motives, reward responsiveness, and sensation seeking ($ps<0.05$). Conversely, the relief subscale was associated with greater age, AUD severity, alcohol craving, coping motives, negative urgency, and depression and anxiety, and lower age of alcohol initiation and positive affect ($ps<0.05$). Pending additional information on the RR-IDS' predictive validity and clinical utility, implementing this measure in clinical settings might help match patients to AUD treatments that work best for them.